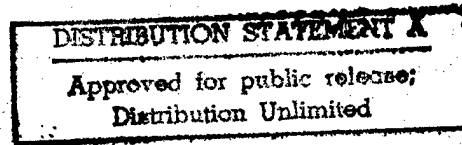


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EAST EUROPE REPORT

ECONOMIC AND INDUSTRIAL AFFAIRS

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OFFICIAL ADVOCATES GREATER CEMA INTEGRATION

Prague NOVA MYSL in Czech No 3, Mar 83 pp 101-111

[Article by Otta Henys: "Intensifying Coordination of CEMA Member Country Economic Development"]

[Text] In its conclusions, the 16th CPCZ Congress emphasized the extraordinary importance of Czechoslovak foreign economic relations for the further economic and social development of our country. The Seventh Plenum of the CPCZ Central Committee in November 1982 designated foreign economic relations as one of the priorities of party economic policy. At present, during the transition of the Czechoslovak economy to an intensive development path, this factor assumes a crucial significance because it creates to a decisive extent the preconditions for making use of the possibilities provided by the current development of science and technology.

The long-term strategy of the economic policy of the CPCZ in the area of foreign economic relations has been an orientation toward the socialist countries, and especially towards the CEMA member countries and, above all, toward the Soviet Union. Beginning in the seventies, and in conjunction with integrational processes within the CEMA community, this strategy has been made more specific by requiring the ever-increasing participation of the Czechoslovak economy in the socialist economic integration of the CEMA member countries. The external preconditions for fulfilling this requirement have been provided, above all, by the current economic and social development performance of the CEMA member countries and their mutual cooperation.

Analyses of the economic and social development of the CEMA member countries and their mutual cooperation throughout the seventies carried out both in the CSSR and in other CEMA member countries have pointed to the indubitable and important fact that despite various negative influences and problems the production and scientific and technical capacity within the CEMA community increased significantly over this time period. An aggregate expression of the economic growth of CEMA member countries is the increase in their national income by 66 percent between 1971-1980. The European member countries of the CEMA have built up multisectorial economic complexes which form the material base for developed socialism. They have implemented important qualitative structural changes by strengthening the proportion of progressive fields. For many important products, the level of the EEC countries has been met or

exceeded on a per capita basis. The achievement of these results had made it possible to implement significant social programs and to increase living standards. The economic development levels of individual CEMA member countries have been brought further into balance and, with the help of the European members of the CEMA, the material and technical basis of socialism has been strengthened in Vietnam, Mongolia and Cuba. There has also been a strengthening of the economic power of the CEMA and its position in the world economy.

On the basis of the 1971 Comprehensive Program there has been a further development of mutual economic, scientific and technical cooperation and an intensification of the integrational linking up of the economies of the CEMA member countries. Through joint efforts, immense national economic facilities have been constructed, and development and cooperative production of several important types of products have been organized. The mutual exchange of goods has expanded substantially (more than 3.5 times bases on current prices for the 1971-1980 period). Implementation has begun of long-range target programs of cooperation, and long-range bilateral programs for specialization and cooperation in production. A self-contained mechanism has been developed and successfully implemented for the management of integrational processes for the CEMA which has provided mainly for a strengthening of the planned character of the joint activities of CEMA member countries.

Economic development and cooperation between CEMA member countries continue to be influenced ever more intensively by world economic development and global problems, including changes in world price relations, which are formed under the complicated influence of economic and political forces. In conjunction with internal conditions, these factors and influences have resulted in a situation in which, since the mid-seventies, certain problems and difficulties have become evident in national economic development within the CEMA community. Above all, there has been an exhaustion of extensive factors of economic growth within the European member countries of the CEMA. Conditions for obtaining raw material and fuel resources have worsened (and have been reflected by substantial increases in their prices), which has practically eliminated the possibility for utilizing them extensively in the eighties. The investment-intensiveness of production has increased and environmental protection costs have also grown. At the same time there has been a significant worsening of actual exchange relationships of small to medium scope which is clearly of an ongoing character. This has been contributed to as well by the consequences of the current manifestations of a general crisis of the capitalist economy and increasing discriminatory measures by the most aggressive imperialist circles. This has led to the occurrence of an external imbalance, the resolution of which will reduce the resources available in upcoming years for final use. It is also impossible not to mention the problems for the CEMA community arising out of the situation in the People's Republic of Poland and the economic consequences of this, the overcoming of which is a long-range matter requiring the assistance of the other CEMA countries.

The net result of the above influences has been a reduction in the economic growth rate of the community of CEMA countries and the appearance of certain internal imbalances. In certain qualitative indicators, we have not been

successful in reducing the extent to which the CEMA member countries lag behind the industrially mature capitalist countries, particularly in labor productivity, the material- and energy-intensiveness of production, and the level of production techniques and technology. A necessary and stable development of agriculture and of domestic raw materials bases remains a serious problem for the CEMA member countries.

Even in the area of cooperation between the CEMA member countries, some problems have persisted that have proved impossible to solve, despite the successes that have been recorded. This concerns especially the planned utilization of goods and cash flows. Fulfillment of the objectives of the Comprehensive Program in this regard, particularly in the area of improving foreign-exchange financial relationships, continues to lag behind the fulfillment of other tasks. As a result, mutual cooperation is insufficiently subordinated to objectives related to the intensification of the national economy. Possibilities for a rational division of labor among the CEMA member countries are not being utilized to the requisite extent; this is also the reason that the depth of specialization and cooperation in production still does not correspond to the requirements for effective economic development.

The forms and techniques of cooperation that have been made use of so far have yet to provide for adequate unity and integrational links among the economies of the CEMA member countries, or for the necessary mutual complementing of each others' economic structures. A common long-term economic development strategy is lacking, which makes impossible the concentration of labor and material resources on critical priorities in the development of science, technology and production.

All of the above realities, taken together, make clear the need for a further substantial intensification of mutual economic cooperation and for the upgrading of the management of integrational processes within the CEMA community to a qualitatively higher level. The urgency of this requirement is generally acknowledged, but there exists a variety of opinions concerning the ranking of the basic areas for its implementation.

Many theoreticians and practitioners hold the view that the mechanism of price-cost relationships is not sufficiently developed in CEMA member country cooperative projects and that, therefore, it is at present particularly necessary to search for a resolution of the requirements for a further substantial intensification of mutual cooperation in this area. Some of them are even of the opinion that the transformational function of external economic relations will continue to change from an end to a means, and that it will move from a dominant to a subordinate position. On the other hand, a view exists according to which it is more realistic and promising to provide for the further development of cooperation primarily through specific projects in the material sphere, and to create in this manner the requisite proportions in materials flows; this amounts to an emphasis on the priority importance of the transformational function of external economic relations over the labor conservation function.

The current conditions of Czechoslovak economic development, however, dictate an approach in which both of these functions form a dialectical entity, mutually reinforce each other, making it impossible to subordinate one to the other. One or the other moves more or less to the fore depending on specific external and internal production conditions. In terms of current conditions, which dictate intensive economic development, the labor-saving function becomes the more significant. This in no way means, however, that the transformational function should not be further developed and strengthened.

The level of development of a socialist society that has been achieved, the demanding tasks of the current phase in the building of a socialist and communist society in the individual CEMA countries, and the complicated conditions of economic development merger together at the start of the eighties to form a requirement for the purposeful coordination of the economic and research and development [R&D] policies of the CEMA member countries. The shift in the focus of cooperation to the area of production and the pre-production stages is logically forcing the coordination of economic policies among countries, in the sense of making them formulate joint objectives, choose appropriate management and incentive mechanisms, as well as appropriate organizational structures. This is, in short, a matter of assuring that this integrational process which is being developed in a planned manner, achieves further success and contributes to the intensification of economic development, especially in the resolution of problems in material production and in the merger of national management systems.

The first steps in the coordination of economic and R&D policies will be to identify those sectors and branches which represent critical problem areas for community development of the productive process. At the same time the coordination of economic policies must become a mechanism for the comprehensive resolution of tasks, must extend to the entire reproduction process from R&D through investment, provide for the construction of optimal facilities, the optimal product mix including specialized production, and the negotiations of mutual deliveries and the conditions thereof.

A fundamental issue in the coordination of economic and R&D policies is the close linking of the coordination of the development of the industrial technological base and investment policy with the coordination of scientific and technical development. No less important for the stable economic development of individual CEMA member countries is the long-term character and stability of their mutual relations. This question is particularly pressing in the capital investment sector.

As far as specific conditions of the Czechoslovak economy are concerned, it is essential to bear in mind that one is dealing with a relatively small economy with a high percentage of processing industries contributing to national income formation, with an incomplete and recourse-poor fuel, energy and raw materials base, with exhausted extensive factors of economic development, and with a significant dependence on external economic relations. For this reason, within the framework of the CEMA, it should seek its product mix and area of specialization so as to correspond to the specific conditions

of the CSSR and, simultaneously, so that it might contribute an adequate share to the resolution of the fundamental developmental problems of the CEMA as a whole.

The foregoing implies that a starting point for the participation of our economy in the coordinated economic policy of the CEMA should consist of the following:

- an orientation to economic cooperation and production programs which on the whole will not increase, but rather foster a reduction in the fuel- energy- and raw-material-intensiveness of the Czechoslovak economy;

- a reduction in the product mix of processing industry, more effective innovation in these industries so as to create the preconditions for assuring contact with world development and world innovational processes;

- increasing the technicoeconomic sophistication and the level of specialization of the Czechoslovak national economic complex.

The purpose of the coordination of the economic and R&D policies among the CEMA member countries should be the joint negotiation of objectives, priorities, and the means for the comprehensive resolution of immense national economic projects. The means for implementing the agreed upon measures will be cooperation in planning activities making use of all the forms of cooperative efforts included in the Comprehensive Program for Developing Socialist Economic Integration.

These new requirements for cooperation in the area of planning are already reflected in a program of coordination of the national economic plans of the CEMA member countries for the 1986-1990 period, which was adopted in June 1982 at the 36th CEMA plenum in Budapest. This is a program representing the seventh coordination of the plans of the CEMA member countries, under which they are to make use of both current experiences from the cooperation of central planning organs as well as experiences from the implementation of the Comprehensive Program and the long-range target cooperative programs. Plan coordination is conceived of as an uninterrupted comprehensive process which is implemented multilaterally and bilaterally through mutual participation in both of these organizational forms. Projects are timed so that the member states may examine their results while compiling their national plans.

A basic element in the improvement and intensification of coordination activities for the upcoming 5-year plan consists of the aggregation into an approved program of measures to implement the coordination of the economic policies of the CEMA member countries. Combining plan coordination with the coordination of economic policies should assist especially in implementing the basic objectives of socioeconomic development of the CEMA member countries, the thorough transition of the economies of the CEMA member countries to primarily intensive development and the further intensification of the international socialist division of labor with regard both to natural and economic conditions and potential, and to the necessity for an effective and balanced development of the economy of every member of the CEMA and the community as a whole.

The program for coordinating national economic plans of the CEMA member countries for the 1986-1990 period brings several new considerations into the current mechanism of socialist economic integration. Cooperation in the area of projections and the coordination of long-range plans and perspectives on economic development gain importance. It will likewise be necessary to link up thoughts concerning scientific and technical development with concrete considerations concerning the economic development of member states. It also appears to be effective to research the possibilities for utilizing to this end forms of joint planning for the development of branches and production sectors.

Likewise, the system of cooperation in the sector of foreign trade, prices, foreign currency financial and credit relations has been the subject of a number of suggestions stemming from the requirement for assuring a tight bond between economic policy coordination and planning coordination. The achievement of further progress in the creation of systemic preconditions for the greater utilization of price-cost relationships in the development of socialist economic integration, both in the internal national economic planned management systems of the CEMA member countries and in the international mechanism of economic integration must be considered as a top priority.

A logical outcome of efforts toward the full development of coordinational work among the CEMA member countries is also the requirement of merging their economic systems and improving the international mechanism of socialist economic integration. The merger of economic systems is a process leading to a search for instruments and resources for managing an effective production process within the framework of the community and the individual economies of the CEMA member countries.

The current implementation of the Comprehensive Program has created several important basic conditions for the merger of economic systems. A complete cooperation system in the area of planning has been created, basic principles for price formation have been outlined for mutual trade, the basic principles of a foreign currency financial and credit system are being formulated. A very extensive base of mutual information also exists concerning overall and individual mechanisms within member states and their divisions.

During the merger of the management structures of the individual CEMA member countries, it will be necessary to concentrate efforts on critical elements of the management structures with the objective of eliminating primarily those differences which retard the development of economic cooperation and mutual cooperative activities. Particular attention will have to be devoted to those systemic measures which have been shown to be essential for the effective realization of agreed upon economic policy in selected areas, and especially for specialization of and cooperation in production, the development of stable and long-term direction relations among the economic organizations of the CEMA member countries, and for the intensification of activities of international economic organizations. Based on these perspectives, it would be efficient to concentrate efforts in the upcoming period on the resolution of problems connected with the objective, content and mutual relations between individual types of plans, the objective of

price-cost categories in planned management, and on the activization of the activities of economic organizations in the area of cooperation.

The intention to change the eighties into a period of intensive production and research R&D cooperation must be considered to be one of the crucial objectives of CEMA member country cooperation. This is a matter of the joint and effective utilization of the results of R&D and the intensification of international specialization and cooperation, with the goal of assuring, over the long term, justified and rational national economic requirements for energy, fuels, raw materials and modern machinery and equipment, as well as the assurance of the demand of the population for quality agricultural, foodstuff and consumer goods items. This intention, which implies as its consequences a further intensification of the international socialist division of labor, is tied to the measures agreed upon by the CEMA member countries within the framework of long-range target programs of cooperation through 1990 in five critical national economic sectors.

The assurance of CEMA community requirements for energy, fuels and raw materials have become exceptionally difficult in comparison with the past because the location of the pertinent resources has shifted to other areas due to the exhaustion of current extractable deposits. Because of climatic and extraction conditions and the necessity to construct an entire infrastructure, the acquisition of these resources is very demanding of financial and capital investment resources, with the result that their extraction is possible only through the joint efforts of interested countries.

The resolution of the fuel, energy and raw materials problem must, however, be seen above all to lie in the implementation of comprehensive measures aimed at the rational utilization of the acquired resources, primarily by reducing the energy- and material-intensiveness of public production through structural changes and the application of R&D in production. The fact that the European member states of the community consume 30-40 percent more energy per unit of national income than the states of the EEC attests to the existence of underutilized potential for the rational utilization of resources.

In view of current and future conditions, nuclear energy is destined to play a significant role in assuring the demand for energy in upcoming decades. To assure the necessary growth of installed capacity (about 100,000 megawatts by 1990) and the production of electricity in nuclear power plants and heat in nuclear heating plants, it is essential to intensify and further expand cooperation in R&D, design, construction and maintenance of the relevant facilities, as discussed at the 36th plenum of the CEMA. Assuring an increase in electricity production also requires the utilization of all other resources, including fuels with low caloric values and new energy sources.

The relocation of energy- and raw-materials-intensive production facilities closer to sources of fuel, energy and raw materials must also be considered as one of the directions for resolving the fuel, energy and raw materials problem. In this regard, possibilities exist primarily in the chemicals industry (where the implementation of this guideline has already begun, with

the cooperation meaning for the CSSR in the 1981-1985 period savings calculated at about 560,000 tons of standard fuel), in metallurgy and in engineering.

Cooperation in the chemical industry should be focused on utilizing specialization and cooperation for the production and mutual deliveries of plastic construction materials and other synthetic materials, initial products for electronics, consumer and food industries, and for health care, on the production of mineral fertilizers and plant protection products as well as other chemical products to assure increased production effectiveness.

In the processing industry, it will be most advantageous to further intensify international specialization and cooperation in production, the level of which has still not reached that of the industrially mature capitalist states, even though some success has been achieved. In the CEMA countries facilities still exist which do not have the optimal dimensions, which is a consequence of a low level of specialization and cooperation in production. The management of the process of international specialization and production cooperation at the national and international level still does not fully correspond to current requirements, because existing agreements in this area incorporate to only a small extent the entire cycle of science - research - production - utilization. It will, therefore, be desirable to base international specialization and production cooperation on the coordination of technical and economic policies in the appropriate sectors, and to assure their linkage with R&D cooperation.

It will be especially necessary to intensify international cooperation and production specialization in the engineering sectors, where there are favorable preconditions for the implementation of this sort of cooperation. Specialized production as a percentage of total engineering exports to the CEMA member countries exceeded 34 percent in 1981. This figure, however, may not be considered satisfactory, the more so because progressive, state-of-the-art technology is little represented in specialized production.

Considerable attention is currently being devoted to the implementation of comprehensive sectorial programs of cooperation in the field of nuclear power plant engineering, the production of industrial robots, microprocessor technology, color televisions, the components base for electronics, the production of high-performance machine tools and forming machines, the production of machines for agriculture and for the food industry. These are programs within the framework of which cooperation is organized for the resolution of tasks of an innovative nature or for the increasing of the technical sophistication of production and a reduction of its lag behind the world state of the art. These programs are based on a concentration of labor and capital resources of the participating partners and encompass the entire production cycle.

In the area of light industry, it will also be desirable to seek additional forms of cooperation in addition to the utilization of international specialization and cooperation in production, forms which will make it possible to better supply the domestic market in the CEMA member countries both

from a quantitative standpoint and in terms of an improved product mix and product quality.

Cooperation among the CEMA member countries in the agricultural and food complex should pursue as its main objective the strengthening of the self-sufficiency of individual member states in the assurance of basic agricultural and food products. This will make possible the smooth supplying of the population with foods, an increase of their consumption. To achieve these objectives it is necessary to intensify cooperation primarily in the area of R&D and to implement its results more effectively in agricultural practice. This is mainly a matter of utilizing the newest findings of biology, genetics and biochemistry in all CEMA member countries. Cooperation must also continue to be focused on the assurance of the industrial technical base of agriculture and the food industry. The question is likewise becoming pertinent of the utilization of cooperative possibilities with non-European CEMA member countries in the areas of agricultural and food products, along the lines of the already signed agreements with the People's Republic of Mongolia (for the utilization of virgin lands) and with the Republic of Cuba (sugar and citrus). In the context of current international political developments, cooperation among the CEMA member countries in the sector of agriculture and food production increases in importance. Preconditions and bases for intensified cooperation in this sector in the eighties are the national agriculture and food programs, among which the key position is held by the food program of the USSR.

An important area of cooperation in the CEMA is transportation, which is assuming even greater importance with the intensification of the division of labor. Further cooperation may be profitably directed at the construction of a unified transportation system and on its optimization and intensification. The comprehensive and effective use of water transport increases in importance from this viewpoint.

The process of internationalizing the economic life of the socialist states is gradually speeding up and critical factors of economic development are acquiring more and more an international character. This gradual internationalization, however, is not in antagonistic conflict with development trends of the individual socialist state. On the contrary, it is a basis and precondition for this.

The policy outlined by the 16th CPCZ Congress and the policies of the other fraternal parties over the near term pursue, over the entire breadth of social development, the solution of the basic conflict of the contemporary period--the conflict between socialism and capitalism. From this flows tasks for the economic policy of the party, and for the economic sphere in particular, both in the area of the domestic economy and in the area of external economic relations.

The implementation of the economic plans of the CEMA member countries in the eighties will without a doubt bring further progress in the development of the economic complex of the community of socialist states. At the same time, however, in view of the magnitude of the economies of the individual

socialist states, the economy of the Soviet Union will continue to play a critical role in the development of this international complex. This is not due solely to its natural conditions, but also to its economic conditions. The scope of the Soviet economy, its real economic and, particularly, R&D potential represent factors which assure for the economies of the socialist states of medium and small scope the most optimal link with world development and the world division of labor.

The intensification of the internationalization of the economic life of the socialist states and the development of the international socialist economic complex brings to the fore the question of the optimization of national production complexes and their mutual interaction. Questions of specialization and cooperation in production, R&D are thus placed in a broader context. The practical experience of the past 10 years confirms the need for a longer term orientation to specialization and cooperation in production and the creation of effective links to specialization in the area of science and technology. The implementation of this requirement, however, implies the creation of new models of interaction which transcend the peculiarities accompanying R&D work. Demands for the priority development of scientific and technical potential, for the more intensive movement of R&D findings, for the planned development and cooperation between the R&D possibilities of the socialist states are, therefore, fully justified.

The socialist states have embarked upon a higher and more demanding phase in their development, to the phase of the building of a mature socialist society. The tasks which face the socialist community will demand the maximum concentration of labor and capital resources, as well as a purposeful and coordinated effort by all fraternal states. As the congresses of fraternal communist and workers parties indicated, all of the preconditions exist within the socialist community for the fulfillment of the requirements brought by the development of real socialism.

A creative Marxist-Leninist approach by fraternal communist and workers parties to the tasks of today in socioeconomic development and realistic assessment of politicoeconomic developments throughout the world constitute a firm base for effective measures toward the further strengthening of the socialist community. The scheduled economic conferences to be held at the highest levels by the CEMA member countries are expected to produce important suggestions in this regard.

At its 16th Congress, the CPCZ emphasized the importance which it assigns to the strengthening of the socialist community and the development of socialist economic integration, with a view to strengthening the stability and increasing the effectiveness of our national economy. It likewise underscored the necessity for active participation in the development of socialist economic integration as the concrete application of the principles of socialist internationalism.

MISUSE OF WORK NORMS CRITICIZED, BETTER REWARD SYSTEM URGED

Bratislava PRAVDA in Slovak 10 Mar 83 p 4

[Interview with Eng Jan Dubis, SSR Ministry of Labor and Social Affairs, director of the Department of Productivity, Improvement of Labor and Working Conditions, by PRAVDA editors Peter Sitanyi and Josef Krsko: "Norms for Labor Consumption Are Not a Whip." Place and date not given]

[Text] In connection with improving the quality and efficiency of our economy, as well as with its transition to intensive development, we keep emphasizing the inevitability of objectivization and expansion of existing norms. This fact was also very clearly pointed out by the Fourth CPCZ Plenum: "Changes occurring in the normative base, which is failing to adjust to the given state of technology and organization, are also inadequate. Without systematic checking of performance and material norms, effective planning and management is impossible. We all know this and everybody admits it. It is true that in this respect we do have some exemplary enterprises, particularly wherever technological processes actually call for such measures. However, in some sectors in industry, in construction, nothing is being done about norms and that leads to poor management, wasting of materials goes on and the use of worktime amounts to downright loitering. And norms, more often than not obsolete, are being met and exceeded."

Yes, we all know it. Everybody admits the irreplaceable role of norms in improving the social productivity of labor, efficient utilization of manpower, machinery, raw materials, energy, processed materials... On the other hand, many problems and shortcomings persist in the normative base. They as well as their solution or elimination were discussed with the director of the department of productivity, Improvement of Labor Efficiency and of Working Conditions in the SSR Ministry of Labor and Social Affairs, Eng Jan Dubis by PRAVDA editors Peter Sitanyi and Jozef Krsko.

[Question] Comrade director, we already outlined some of the problems attendant to the normative base in the introduction. However, our discussion will revolve primarily around norms pertaining to the consumption of labor. For their development the SSR Government adopted Resolution No 396/80. How are the responsible officials carrying out their assigned tasks?

[Answer] In the years 1981-1982, we successfully accomplished a significant part of the targeted program, both in regards to objectivization as well as expansion of norms. Thus, I see no reason why the entire program stipulated for the Seventh 5-Year Plan should not be accomplished.

[Question] Could you be a little more specific?

[Answer] For example, according to the program the number of those whose work is not subject to norms is to be reduced by 15 percent. On the basis of the results obtained so far, it can be stated that this task will be fully accomplished within the SSR economy.

[Question] Throughout the economy the talk is about quality and efficiency. Thus, let us adhere to these criteria also in regards to development of improved efficiency and normative regulation of labor. After taking a closer look at individual sectors, VHJ [economic production units] and enterprises it can be said that they devote more attention to the quantitative aspect and not to improving the quality of the normative base. It stands to reason that with such an approach contributions to improved labor productivity and improved effectiveness of the wage system are not what they could be.

[Answer] You are right in that. The potential for improving the quality of the normative base is not adequately used by individual organizations, to the detriment of the overall economic effect. It turns out that best results in development and improvement of the quality of the normative base are achieved by organizations in which organization of labor is also at a high level.

[Question] Would it then be correct to say that more of leading managerial personnel should participate in this area?

[Answer] Without a doubt. First of all, the plant manager. In addition to him, the overall development of the normative base must be participated in more prominently than has been the case by groups of specialists--standardizers, improvement promoters, technicians, technologists--and last but not least also by those who work according to norms, meaning the workers. Workers are not afraid of higher performance, but of not being provided with the requisite conditions. That is why there is a need for participation of a wide circle of specialists in development of the normative base.

[Question] Regretfully, in practice the focal point of performance is still the responsibility of the labor and wage administration. Thus, the approach to dealing with existing problems is prevalently administrative. For example, the branch of the Pisek Engineering Plants in Liptovsky Mikulas every year administratively assigns to workers a higher quota for meeting norms. To the average meeting of performance norms by individual workers in the previous

year they add the planned increase in meeting quotas for the coming year. Last year they even increased the plan for meeting norms for workers who were unable to meet them in the preceding year and were consequently even then sacrificing some premium payments...

[Answer] Dealing with the problem in such a manner offers no solution. Even standardization needs a political approach which, regrettably, fails to be met by many enterprises. People must perceive that producing with improved quality and more, even with a lower demand by what constitutes input into production--meaning machinery, energy used for illumination and heating of work stations--is in their own interest. Results can be expected only when this condition is met. More means will become available for distribution only after production turns out better quality, more products and in a shorter time.

[Question] Yes, in a shorter time. Only, in the Liptovsky Mikulas branch of the Pisek Engineering Plants they included into the system of premiums as the decisive indicator the exact opposite--meeting the plan of overtime hours. If a workers fails to put in those overtime hours, his premiums are reduced even if he meets or exceeds quotas.

[Answer] I would put it another way. I did say that an enterprise has only to gain by turning out products in a shorter time, even in cases when it pays out to the workers a major part of savings in labor value added, since it will achieve savings in fixed assets. On the other hand, it ought to be stressed that by drawing on overtime it can only lose through extra payments for work in time off, through costs of energy, etc. Enterprises and plants should make better use of the opportunity offered them by the guidelines of the Federal Ministry of Labor and Social Affairs for utilization of wage funds acquired by manpower savings. According to their provisions, an organization can use 30 to 50 percent of wage funds acquired through such savings for providing a system of incentives for workers who participate in achieving manpower savings.

[Question] Only these guidelines, experiences of Shchekino chemical workers worked out to fit our conditions, still find very little application and it is understandable that workers see the problems of objectivization and expansion of the normative base rather as an administrative whip to be used against them. They often have a feeling of being wronged, of injustice.

[Answer] Let us not drag justice into it. After all, the matter is clear.

[Question] Let us be more precise then. In the Soviet Union--in the Rostov region--there is a movement in which workers at their own initiative check and tighten up existing norms which, naturally, in keeping with the agreement reached with the plant management, becomes reflected also in their system of incentives. Thus, what we are talking about is that we cannot ask the worker to produce more, with better quality and efficiency by offering him as an incentive only a good word, without applying the merit principle.

[Answer] When you put it this way, I fully agree. Such opportunities also exist in our country. After all, some enterprises incorporate all problems relevant to the normative base and the share of workers in its development into collective bargaining agreements. However, the catch still is that not everything that is contained in the agreements is reflected in specific form at individual places of work.

[Question] However, that changes, or at least should change, many of the surviving practices in the relations between workers and economic management...

[Answer] Right, and that is why I pointed out that both of these components must participate in development of the normative base. As matters really stand, improving the quality and expansion of norms is a tool of workers and trade union organizations for improving the organization of labor, for increasing output and earnings. After all, a worker goes to his job to turn out as much as possible with the highest possible quality and to receive a commensurate remuneration. When these two conditions are met, changes will occur in norms as well. But in the forefront will be the ideas of rank-and-file workers, their participation in management will increase. They will exert pressure on the management sphere to create for them suitable conditions conducive to increased and higher quality output, to better organize the entire production process. It was not just by happenstance that I pointed out that wherever there is a high level of organization of labor there are no essential problems with norms.

[Question] For the rest of the time, much discussion is going on in our country about workers in the preproduction stages...

[Answer] Standardization of their work is also sometimes discussed. However, creative mental activity cannot be standardized with any precision, squeezed into a delineated time span.

[Question] That is not what we wanted to discuss, but rather planning of scientific and technological development on the basis of approximative norms. For example, at the Ball-Bearings Production Plant in Kysucke Nove Mesto there sprang up the following problem. Meeting of the plan is checked through quantitative indicators--number of hours spent by designers on this or that task. Let me give you an example. According to the plan, the task should be worked on by seven designers, but only five actually do. Even though they complete the task, they are not eligible for a premium because two people did not draw salary and, thus, as they call it there, output has not been met. They simply cannot accomplish a task for less expense than provided for by the plan.

[Answer] That is a practice gone awry. Designers in particular should be rewarded for accomplishing tasks expediently and at less cost--even though there is no norm providing a basis for exact determination of the time required for accomplishment of a task. Also in this context, I would like to again point out the guidelines of the Federal Ministry of Labor and Social Affairs for utilization of wage funds acquired through manpower savings.

[Question] Comrade manager, as far as norms are concerned, the situation is substantially better, even though, naturally, not especially good, in main production activities. However, we cannot also leave out personnel performing auxiliary and servicing operations, since they amount to about 50 percent of all workers in our national economy...

[Answer] True, this involves primarily personnel engaged in handling of materials, maintenance and repair of fixed assets and quality control. It also involves people working in the sphere of management of tools and implements, in energy management and in sectors oriented toward providing care in regard to working conditions and services in the social and cultural area. According to labor consumption norms, while about 80 workers are currently engaged in main production, only 25 to 46 percent are engaged in auxiliary and servicing processes.

[Question] The percentage of those engaged in auxiliary and servicing processes is considerably high. Nevertheless, there appear tendencies for further increases. Do you think that development of the normative base in this sphere could be instrumental in changing quantity into quality?

[Answer] I would say yes, even though the possibilities for applying performance norms to auxiliary and servicing operations are substantially more restricted than is the case in main production activities. On the other hand, for example, shortcomings in internal organization of labor lead to outage times in the area of maintenance. They represent up to 35 percent of intra-shift working time. And that is, without a doubt, a strong argument for maintaining that even in this area norms and improved organization of labor can produce significant benefits without increases in manpower.

[Question] In his discussion with chief editors of the party press, Comrade Lenart underlined, among other things, that "there is a need for more expediently and more systematically improving planning and, in this context, standardization." Carrying out this task also depends in many respects on party organizations. How do you, not only as department manager, but also as chairman of the party organization in the ministry, view this role of Communist Party members?

[Answer] As I already pointed out, a prerequisite for objectivization and expansion of norms of all kinds is wide participation by the working public, primarily by workers. True, they must be persuaded to participate in these efforts, it must be explained to them on the basis of specific facts that development of the normative base is not oriented against them, but that with adhering to the principle of merit it tends to improve the quality of their standard of living, development of the entire economy. A significant role should be played in all this specifically by Communist Party members, because if the economic system is to function, the system of interests must function as well. However, the best approach to gain the support of the people, of wide circles of the working public for this area, are not just judicious and nice speeches, but clearcut rules of the game must be adhered to by all interested parties. In this context, comes to the forefront application of brigade-type forms of organization of labor and remuneration, which also

provide a full measure of leeway for development of the normative base under wide participation by all workers. Consequently, party organizations and their committees cannot view the efforts for developing the normative base separately from the total effort toward intensification and, in the final analysis, separately from applying the principle of pay according to merit.

8204

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RESEARCH, DEVELOPMENT PROBLEMS REVIEWED

Prague RUDE PRAVO in Czech 11 Mar 83 p 1

[Editorial: "The Direction Toward Efficiency"]

[Text] Last year there were 8,393 inventions, or 4 percent more than in the previous year. The number of applications for suggestions for improvement increased at the same rate, reaching 334,000. We can thus state graphically that approximately 1 out of every 20 citizens of productive age discovered some way to improve the current state of affairs and proposed a method for achieving this. This is certainly a lovely example of the creative initiative of our workers. It is also evidence that they took to heart the implementation of the party's line of strategy on increasing the efficiency and quality of every form of work.

In many of our enterprises, inventors and innovators are respected and their social commitment highly esteemed. To be sure, all the discoveries and suggestions which show up in the above figures took up a large part of the personal free time of their authors, and no small amount of self-denial, nerve and sweat. While others amused themselves, carefree, spent time on their personal hobbies or rested, the inventors and innovators strained every fiber and capability to solve the problem which they set themselves. Did they at least receive some reward for this? Only the uninitiated might think so, not suspecting that the average reward for a suggestion for improvement amounts to only a few hundred, or at the very most a few thousand crowns. In comparison with the effort and time expended, this is more a moral than a material recognition.

The idea of gain does not stimulate inventors and innovators, They are driven by the longing and the will to solve problems, to help society develop. They consider this a matter of civic honor, and, in many cases, the outright duty of a member of socialist society. It is a lovely thing that our society has such people, who pave the way for the intensified growth of our economic potential.

And there are some others who contribute their suggestions for the success of society as a matter of course, following from the needs of their institute or plant. The most recent example of this is the ongoing social evaluation process for rationalizing the consumption of fuels and energy. This is taking

on a hitherto unprecedented scale not only in designated workplaces, but also on the personal initiative of workers of additional organizations. How many suggestions for decreasing consumption have already been contributed? A few weeks still remain before the target number of contributed suggestions is reached, but it is evident even now that savings over our previous level of consumption will be a valuable investment in increasing the efficiency of our economy.

We must realize that a changed evaluation process for rationalizing consumption will not only result in rational economizing of energy sources--and it must be admitted that we have no surplus of these--but will also affect the share of production and operating expenses and, stated simply, improve the profitability of a broad variety of different activities. This particular relation is well understood by the workers in most enterprises, who by their suggestions and advice are contributing effectively to it.

It is desirable to make an equally great effort to rationalize the consumption of metals. This is another direction in which many innovators for focusing their attention and, by their suggestions, helping to decrease the consumption of metals, to make our products more competitive, and to increase production efficiency.

But it should be stressed that the struggle for greater efficiency and quality of work cannot be limited only to the more or less voluntary creative enthusiasm of individuals or even teams of research workers: striving to produce more economical outputs must be the common denominator of every activity. And, above all, of those persons who are responsible for such activity--all leaders and heads of workers, divisions for technical development, and quality control, all planners and designers, technologists, agronomists, animal technicians and mechanizers.

The direction toward increased efficiency is a program for all of society: all members must contribute to the best of their strength, ability, and knowledge. Not everyone can invent or improve, but we must try at least to put suggested improvements into practice. However colossal the activity of inventors and innovators, when one considers the figures cited above, still more information is provided by research activity and technical development. What are we to do with all this data? Year after year the Federal Bureau of Statistics states in its report that the amount of new technology called for by the state plan for technical development has not been introduced into production. Last year, out of 534 planned introductions, only 498 were actually implemented. Such introduction of new technology is however only a fraction of the total source of new information.

Scientific and technical progress is indicated as a reserve for increasing efficiency. This is correct--but only for already exploited knowledge. Unutilized new knowledge and methods are not a reserve, but, in effect, a loss. It is clear what needs to be done and how to do it, but until this is put into practice it has no impact on efficiency. What is efficiency? It can be explained as the rationalization of the production of means which

society requires for its development. Put more simply--not to increase efficiency means to limit the development of a society, not to satisfy its needs. Obviously, efforts to increase efficiency actually affect the way of life of every citizen.

The Set of Measures for Improving the Planned Management System of the National Economy places great emphasis on the importance of scientific and technical development and ascribes to it the most important place in the entire system of planning and management. It adds that this is the most profitable direction toward efficiency, and today practically the only applicable one. Are our enterprises aware of this? The share of products of a high technical and economic level out of the entire output of industrial products was in the past year approximately 11 percent. This does not indicate that scientific and technical development is considered in first place in all our enterprises nor does it correspond to the needs of our economy--the needs of our society.

The knowledge of what to do and how to do it better must without a doubt manifest itself at the level of product quality. Here, too, in increasingly greater, one might say, even decisive measure, we have the effect of making the best use of new information from research and technology. The share of traditional products in which technological development cannot effect an improvement in quality is constantly shrinking and in some fields is becoming negligible. It follows that the struggle for new and better quality is unthinkable without putting into practice the achievements of science, research, and technology. It is unsettling to know that only a small part of new products pretends to any sort of high quality. This is evidence that we have not put new knowledge into practice, that we are not serious about introducing such knowledge, that we underestimate the unconditional need to increase efficiency and quality.

It is easy to show that one country or another is able to produce with greater efficiency of assets invested than we are. Every such critic should first think what he himself has done to raise our level of production. No foreign product of indisputable world superiority was born through some miracle. On the contrary, its own producers admit--and some of them even boast of this--how much effort was devoted to research and technical development as well as to the effective exploitation of new knowledge in practice. This cannot be otherwise and we must follow the same route.

It is logical that in every production process new demands for more knowledge are always arising. The path to this knowledge is difficult and very laborious. How many suggestions for ways to solve problems end up in the wastebasket before the right one is found? Many of our enterprises nevertheless err in that they make new demands without making serious efforts to benefit from those problems which have already been solved. This is one of the most important shortcomings of the contemporary system but also the starting point for prompt redress.

The tediousness of putting new knowledge into practice is caused in part by the low concentration of forces and assets, as if the desired outcome were not

so pressing, as if we could manage for many more years without its contribution to increased efficiency. How else can we explain the fact that the production of machinery whose principle [of operation] has long been understood takes a particular manufacturer 5, 8, or even 10 years to master? (This is no way affected by the fact that, to be sure, principles have been discovered which are as yet beyond the capabilities of contemporary production, for the number of these is insignificant and we cannot, therefore, take refuge behind such excuses.)

The direction toward increased efficiency--and quality-- is none other than scientific and technical development and taking complete advantage of its contribution in practice. The implementation of such development is an important political task for all of society, for which we cannot stint time and energy. It is in the interest of the further development of our socialist society; it is an expression of our responsibility for building the road which future generations will travel.

9832

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ECONOMIC COLLEGE VICE RECTOR ADVOCATES INTENSIFICATION

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[Article by Frantisek Valenta, vicerektor, Advanced School of Economics, Prague: "Structure of Innovations in Intensification of the Economy"]

[Text] The present key strategic economic task--which the party targeted at the 14th, worked out at the 15th and adapted to current conditions at the 16th congress--is transition of our national economy onto the path of intensive development. Success in completion of this demanding task depends on practical and effective utilization of the findings of science, research, development as well as on voluntary creative efforts of the working public through efficiency improvements and scientific and technological innovations in production and in other sectors of the national economy. The current role of development of science, technology and efficiency in the process of intensification of the economy, is in comparison with the preceding period, not only quantitatively higher, but also qualitatively a new concept. The new concept of this role of the innovation process in the development of the national economy forms an integral part of C. Gustav Husak's thesis contained in the Report to the 16th CPCZ congress which expresses the essence of intensive development of the economy: "achieving higher generation of national income with the available manpower and material resources." Under the conditions of economic development in the 80s and in subsequent years, any increases in the national income can be achieved only by a continuously improving utilization of the stagnating and, in some cases, absolutely decreasing amounts of raw material, fuel and energy resources in production manpower with constantly increasing qualifications. This process of intensification of economic development can be accomplished only on the basis of a constantly improving knowledge of the properties and substance of nature in basic research, a constantly improving interlinkage of these newly discovered properties with field experience in production and the traditions of applied research and development [R&D] as well as directly in production. However, all that also calls for a constantly improving acquisition of knowledge regarding the laws attendant to development of socialist society and its internal forces and applying these findings to management of social development.

This function of science, applied R&D as well as of expanded acquisition of experience in production in the development of the national economy is nothing

new. Its only new aspect is the fact that under current and future conditions it is becoming, for all practical purposes, the only source for economic development, the only source for growth of national income.

In the development of our national economy to date, the key resources for growth of national income were increments in manpower and material resources in the so-called inputs into the national economy, i.e., primarily increments in the sum of past and direct labor input invested and consumed in material production. The effect of actual application of the results of R&D and production experience was in that situation a supplementary factor in the development of economy and in growth of the generated national income. Thus, growth in the generated national income appeared primarily as the product of the increasing sum of past and direct labor input in production (whereby this increasing sum of past and direct labor input is considered to be an extensive factor in development of the national economy). Only secondarily did this growth in the generated national income also appear as the product of an improving utilization of expended past and direct labor input due to continued improvement of production processes and products on the basis of practical application of the results of R&D and progress made in production experience (whereby this improved utilization of expended past and direct labor input is regarded to be an intensive factor of economic development).

This type of development of the national economy--which found application in our country till the late 70s--roughly corresponds to the models of economic development conceived on the basis of theories of economic growth. In these models, succinctly put, increment in national income is defined as the function of an increment in labor and capital (or, eventually, increment in manpower and material resources and in investments). As not everything in the development of national income can be explained by an increase in production factors at inputs into the national economy, the models of economic growth also defined the so-called residual factor, explaining the supplementary effect of technological progress, increases in the level of education, etc., on growth of national income.

A cumulative and indirect expression of the effect of technological progress on the growth of national income in classical models of economic growth is being overcome in part by an analysis of changes in the productivity of labor, changes in the demand of national income on raw materials, energy, labor or investments, changes in coefficients of efficiency in the use of various structural parts of inputs into material production and the national economy. Nevertheless, even this analytical view of the extent of the effects of the intensive factor of economic development still retains certain limitations given by the fact that even in this case it involves indirect reflection of the effects of practical application of the results of R&D and progress in production experience on the growth of national income.

So far, the common feature of all the developed systems for modelling and analysis of economic development is their use of merely the input/output characteristics of the national economy, taking the form of an analysis of economic behavior, i.e., an external reflection of the developmental process of the national economy as evinced, on the one hand, in changes of the so-called

input factors (manpower, raw material and energy sources, investments, etc., eventually also consumption for production operations) and, on the other hand, changes in the so-called output factors (total net national product, national income). In analysis of this type, the origin and causes for certain growth in national income, or in net national product, are defined by changes in another aspect of economic behavior, i.e., changes in its input factors. For example, the origin and cause for a certain increment in national income is sought and seen in a certain change in input factors, namely in their simple growth, on the one hand, and in their mutual structural shifts, on the other hand. The causes for economic development in one direction, i.e., in the direction of the development of input factors, are judged by the changes which the same economic development is simultaneously undergoing in another direction, i.e., in the direction of the development of output factors.

There can be no doubt that certain growth of national income can be achieved only through a certain combination of quantitative and structural (qualitative) changes in input factors. This relation of output and input factors provides the effective basis for various types and variants of analyses and productivity measurements. However, there also can be no doubt that both of them, i.e., growth of national income and total net national product at the output as well as quantitative and structural changes in input factors are jointly caused by the mass and structure of another class of phenomena that already belong outside the category of economic behavior as it represents the sum of changes made in the internal structure of the social production process based on practical application of the results of R&D and advances in production experience. This class of phenomena also affects changes in the mutual relationship of output and input factors, as evinced by shifts in indicators of productivity and in coefficients of demand and efficiency. This factor--which at the same time affects both output and input factors as well as changes in their mutual relationships--is constituted by changes of an innovative nature.

Intensification of our economy calls for development of analytical procedures and methods utilizing the relationship of the input/output characteristics of the national economy on the quantum and structure of innovative changes made in the social production process. Expressing the process of intensive development of the economy--wherein the quantum of raw material, fuel and energy input sources is stagnating, or even shows an absolute decrease, while the generated national income still keeps growing--by methods derived from classical theories of economic growth and from an analysis of input/output interactions, is extremely difficult and sometimes even impossible. With the background of these classical methods of macroeconomic analysis, it appears unnatural to contemplate such facts that, e.g., the coefficient of elasticity of the demand on energy posed by growth of national income should decrease, in comparison with the past to zero or even into negative values (i.e., a case when national income shows absolute growth during stagnation or absolute decrease in the total consumption of energy). However, it is known at the same time that specifically in all of these (in addition to other analogously developing partial relationships) is an expression of the task of affecting a transition of our economy to a path of intensive development

as the solution to this problem reflects the realistic conditions of our economic development in the 80s. In addition, it is also known that there is a potential and real existence of certain innovative changes that can be made in production and products, which at the same time bring about continued improvement in the utilitarian properties of manufactured products together with a growth in newly generated value, as well as an absolute decrease in the demand on energy during their production and utilization.

In other words, processes which we regard as the objectively requisite basis for intensification of the economy and which can potentially materialize in using the innovative potential of scientific findings, technological ingenuity and production experience, appear as improbable and paradoxical in analytic approaches derived from theories of economic growth. What up to now could be expressed on the basis of the relationship of direct proportionality with a certain coefficient of elasticity, such as, e.g., the above-mentioned relation between growth in the generated national income and the growth in consumption of energy, now appears as a relation of indirect proportionality. Of course, we cannot just simply (i.e., merely on the basis of an analysis of input/output interactions) proclaim that national income will increase the faster, the more we manage to decrease consumption of energy sources. This relation of indirect proportionality assumes a realistic dimension once we arrive, on the basis of an analysis of the effects of the innovation process, at the conclusion that implementation of certain innovations produces at the same time a growth in national income while there occurs an absolute decrease in the overall consumption of energy sources, and that also certain innovative changes made in production can mean that 1 Koruna saved on energy equals 1 Koruna increment to the national income.

For effective management of the intensive type of development of the national economy in economic theory as well as in practical economic life, it appears necessary to develop a type of economic analysis which would consider the effects of practically applied findings of science, technological R&D as well as advances in production experience--achieved through the process of innovation--to be an internal factor of the mechanism of economic growth and which would directly identify this factor.

At the same time, it would be necessary to overcome the state existing at the present, where economic effects due to innovative changes made in production (through technological development and investments) are being expressed by a special system of criteria of efficiency which is not consistent with the manner in which economic development is expressed in plans and in reality for the national economy as a whole as well as for the individual sectors. VHI [economic production units] and enterprises. At the same time, there is also a need for creating the prerequisites for this consistency of effects resulting from innovative actions in the structure of the basic system of indicators of the planned, as well as actual, development of the national economy, in order that they be able to reflect the effects of innovative actions on intensification of the economy. This is needed because of the decisive role played by scientific, technological and efficiency improvements of production in an intensive type of economic development.

The essence of the development of the national economy, as has already been pointed out above, is constituted by a simple relation. Changes in the values of national income, total net national product, consumption for production operations as well as changes in their mutual relations are caused by changes in the manufactured products, the used techniques and technology, changes in the qualification of personnel, organization of production, etc., ergo changes in the structure of the social production process. The situation is the same or analogous at lower levels, i.e., in ministerial departments. VhJ and enterprises, at least in regards to changes in the overall value of production, return on investment, own production costs, development of adjusted value added and cost of materials, etc. To put it briefly, changes in economic (input/output) behavior are the summary economic consequence of the sum of all implemented innovations. On the other hand, each innovation is reflected in a certain manner in changes occurring in the input/output characteristics, in which it wields its own economic effect. Each change in the input/output characteristics has its origin in innovations.

This basic relationship has an absolute validity, insofar as there are no changes in external economic conditions (e.g., prices of raw material and energy inputs) of the production organism for which the relations between innovations and economic behavior are being recorded, be it the national economy as a whole, or only its components. As long as there is no change in these external economic conditions, the relation between the sum of innovations (their frequency, structure and complexity) as the cause and between the sum of economic effects as their consequence, are direct. If changes do occur in internal economic conditions and if then as the result of, e.g., increases in the price of raw materials, fuels, energy, etc., there occur increases in the cost of production, then the relation between economic effects as the consequence and innovations as their cause is intermediary. Thus, some changes in economic behavior (i.e., a certain component of economic effects) are brought about not by innovations applied in the production organism itself, but by changes which occurred in other production organisms. For example, increases in the price of raw materials can be caused by deterioration of natural conditions and the necessity to use more complicated and more demanding techniques and technology in their extraction.

However, even in the case of the above intermediary relation between innovations and economic effects, that relation can be defined as direct in the sense that deterioration of economic behavior (negative effects), caused by changes in internal conditions, occurred because there were no requisite changes in the structure of the production organism itself which could have compensated for unfavorable external effects. As a side comment, it can be pointed out that this interpretation of the relation between the effects of the production organism itself and between changes in other production organisms is analogous to a case wherein deterioration and economic behavior of the production organism is caused by spontaneous degenerative changes in the structure of production (e.g., by physical wear and tear of production equipment) and occurs due to a failure to take appropriate regenerative measures in production (e.g., failure to maintain, repair and replace production equipment). A certain part of the sum of innovations

must then be undertaken not to achieve a positive economic effect, but to prevent the occurrence of a negative economic effect.

Regardless of the complexity and inner variegation of the basic relationship of economic effects on innovations, the fact remains that in development of the national economy we deal with two qualitatively differing categories of objective phenomena. On the one hand, they are innovative measures made in the structure of production processes, on the other hand, it is their consequences and manifestations in changes of the factors of economic behavior. In this basic differentiation between innovations and effects and in functional dependence of effects on innovations is contained a theoretical possibility for analyzing the development of economic input and output factors, e.g., national income and consumption for production operations (or, at enterprise level, e.g., development of adjusted value added and material expenses) as the consequence of a certain quantum and structure of innovations, i.e., the possibility of distributing in toto the overall changes in input and output factors among individual innovations and expressing them with adequate precision the origin and sources of economic development. This also offers the possibility of combining the summary changes in input and output factors from the partial effects of individual innovations.

Transformation of this interim theoretical possibility depends in reality on finding a solution to the measuring of innovative flow, i.e., measuring the quantum of innovations per unit of time. It is dependent on solving the method for measuring the partial effect of innovations on changes in economic behavior, e.e., solving the manner of measuring the effects of individual innovations so that in their structure they be consistent with the manner used for expressing total economic development (in the plan and in reality) of the national economy, ministerial departments, V&E, enterprises and plants. After all, the real objective is that we be able to determine not only post facto but a priori what the effects of a certain innovation are, e.g., on growth of the generated national income and on a decrease in consumption for production operations, or if this effect actually materializes.

The first of the outlined problems (measuring the quantum of innovations) is only seemingly simpler than the other (effects of a single innovation). In economic practice and in research there are many various methods for measuring the intensity or structure of innovative flow.

The nature of the task is contravened by the approach in which the quantum of innovations is expressed by the amount of expenditures expended on preparation of innovations in R&D, eventually by the amount of investment costs connected with implementation of an innovation. This approach would again revert analysis of the effects of innovations on economic development to mere assessment of the relations between input and output factors.

Measuring the flow of innovations by means of solved R&D tasks would not be very accurate. Not all of these tasks do actually find application in production and, on the other hand, in the sum of implemented innovations a considerable part is not based on application of the results of R&D. Measuring

of innovative flow for the purpose of analyzing the effect of the innovative process on economic development should be oriented toward changes that in the course of a certain period actually materialize in the structure of the production process and in the structure of manufactured products.

However, even if we adopt as the basis of measurement a set of changes that were actually implemented in production, we are faced with several possibilities. The first among them is the possibility to define as a "measurable unit" the so-called elementary innovation, e.g., and individual partial change which occurs as part of the innovative process with individual production factors, with the qualifications of personnel, with production equipment, with technology, with the structuring of the manufactured product, with the used energy or with organization of the production process.

On this approach is also based statistical monitoring of selected processes which fall within the sphere of the innovation process, such as is, e.g., the technical level of production equipment, the level of mechanization of labor, development in the ratio of manual and automated operations, etc. Even though this involves very significant processes, from the viewpoint of analyzing the effect of innovations on economic development this manner of distribution of the innovative process poses a certain disadvantage, because it is not conducive to unequivocally assigning to a certain group of implemented measures (into production equipment, into organization of production, etc.) a certain measure of the economic effect. In all cases involving application of this viewpoint what actually occurs is determination of partial aspects of the comprehensive innovative process.

However, the measure of the economic effect is directly dependent on the comprehensive nature of innovation, namely, on whether the structure of a certain innovation includes technical, design, organizational, qualification, etc. aspect with a view to the state of the production process which is changed for the better by implementing the innovation. It can be said that a measurable unit of the innovative process--which would meet the needs of analysis of the effects of innovations on economic development--is the so-called innovation action as a set of mutually dependent elementary innovations of various production factors carried out in a direct chronological relationship. This conclusion is derived from the results of studies of the innovative process conducted by the Advanced School of Economics in Prague since 1972.

The basic advantage offered by this type of subdividing the innovative process is constituted by the fact that individual innovative actions do not mutually overlap, their mutual relation is that of the so-called disjunctive subsystems of the overall innovative process; for that reason, each of them can be assigned unequivocally a certain effect on changes in economic behavior of a production organism, i.e., a certain partial economic effect.

Of course, individual innovative actions differ among themselves by a varying magnitude of elementary innovation which brought about a comprehensive innovative action, by a varying demand on R&D and preparation of production, varying demands on investments, etc. An analysis of a large set of innovative actions obtained through research in the 70s yielded the conclusion that the

decisive property of innovative actions is the so-called radius of action, i.e., that sphere of production which in implementation of an innovative action is affected by changes in distribution of labor (i.e., the sphere of production organisms which change the orientation of their production as part of implementation of the innovative action). The measures of the radius of action are production organisms of a differing order of magnitude, such as, if implementation of a certain simple measure promoting efficiency, e.g., a change in the sequence of operations in the technological process, brings about changes in the distribution of labor within a single workshop or a production sector, than the radius of action of that innovative action is the workshop (or the production sector). This innovative action then becomes a relatively independent innovative action of the workshop (production sector). If another case involves, e.g., launching production of a new generation of products which also calls for changes in production programs among enterprises within a given VHJ--whereby these changes are imperative for achieving a positive economic result--then the radius of action of that innovative action is the VHJ and it involves a relatively independent innovative action of the VHJ.

On this basis, the overall innovative process as the sum of disjunctive innovation actions can be divided into layers according to levels (orders of magnitude) of production organisms from the viewpoint of which they are their relatively independent innovative actions. The distribution of innovative actions according to the radius of action (i.e., according to the levels or orders of magnitude of production organisms for which they represent relatively independent innovative actions) is important for analyzing the effect of the innovation process on economic development, because tied to the radius of action is also the order of magnitude of the elementary innovation which precipitated a certain innovative action and because with an increase in the radius of action there is an increase in the demand of innovative actions on R&D, to include the relevant investments. The studies also determined an increasing effect on innovative actions on return on investment with an increase in their radius of action.

Relatively independent innovative actions occur at all levels of production organisms. They materialize as relatively independent actions of workshops, sectors and plants within enterprises where they, as a rule, have the nature of efficiency-oriented innovations (innovative actions which do not call for changes in the quality of products from the viewpoint of their user and which do not call for investment costs). There are also implemented innovative actions which are relatively independent actions of enterprises, VHJ and ministerial departments. These involve primarily qualitative innovations of the second zone (i.e., qualitative changes in products and production processes in conventional and "long-established" productions). There are also innovative actions that can be handled only on the scale of the entire national economy or on the scale of CEMA. A substantial part of the latter is introduction of entirely new productions connected over the past several years with wider use of nuclear power engineering, development of micro-electronics and application of microbiological technologies (the third, revolutionary zone of the innovation process).

Existence of all layers of innovative actions according to the action radius at all levels (orders of magnitude) of production organisms is the natural consequence of the fact that production organisms of all orders of magnitude objectively tend toward improvement and that they do so through innovations which from their viewpoint can be implemented relatively independently, be it in the case of intraplant units, be it in the case of plants and supraplant entities, or be it in the framework of the national economy or the entire CEMA. At the same time, however, there is emphasis on participation by lower production organisms in innovative actions of higher entities, i.e., participation of all lower production organisms in viable development of higher production organisms, the entire national economy and the entire community of socialist countries forming CEMA.

From the studies that have been conducted since 1972 we can derive, for the time being, the hypothetical conclusion that the quantum of innovative actions that a production organism of a random order of magnitude can (or must) implement as relatively independent actions at its own level in a given unit of time is constant. Current findings permit an estimate that this constant ranges between 20-30 innovative actions per year. There is a great variety of innovative actions that differ qualitatively according to their radius of action.

These studies also confirmed the fact that in the overall frequency of innovative actions belonging to various layers according to their radius of action there also applies a certain quantitative proportionality derived from the varying frequency of innovations of a different order of magnitude. This quantitative proportionality is different in different sectors. In the engineering industry, an innovative action with a certain radius of action is constituted at an average by five innovative actions with a radius of action lower by one order of magnitude. In petrochemistry and microelectronics this proportionality was determined to be close to a ratio of 1:3, in the textile industry this ratio is approximately 1:20. The value of this ratio obviously depends on the "innovative age" of a certain production sector and its "innovative potential."

The seeming disparity between the constant number of relatively independent innovative actions in production organisms of all orders of magnitude and in all sectors, on the one hand, and the different proportionality between the quantum of innovations with a varying radius of action is dealt with in practical economic life by the organizational structure of the production base. For example, VHJ with a high relative frequency of innovative actions of a lower radius of action accruing to one action with a higher radius of action (e.g., 1:20) combine, as a rule, a higher number of subordinate enterprises (e.g., in the textile industry) than in sectors where this ratio is 1:3 (e.g., in petrochemistry). In this respect the empirical "rule of dirigibility" for which, it appears, the concept of a constant of innovative actions and the sectorially differing proportionality of innovations with a varying radius of action provides a certain theoretical basis, applies in organizational practice.

Use of structured nature of the innovative process in the layers of innovative actions according to their radius of action and their quantitative

proportionality in various sectors provides in practical economic life the opportunity, provided the average effect of innovations of various layers on the input/output economic characteristics of production organisms is known, to apply in decisionmaking about innovations the direct relation of innovations to the economic results of enterprises, supraplant entities and the whole national economy. At the same time, it is possible to measure with relative accuracy at various levels the effect of those innovative actions which are being decided at that particular level, on changes in economic results and simultaneously estimate the intensity of the effect of the innovative process of all lower entities within the given production organism. In the research project that is being carried out jointly by the JSE [Advanced School of Economy] in Prague, the FSU [Federal Bureau of Statistics] and four industrial enterprises in Prague in the early months of the current year which is also designed to verify the possibility for direct determination of the effect of innovative actions on economic results, it was found out that this system is being used by two enterprises without being required to do so or without any mention in the technical literature.

A key role in decisionmaking about which innovative actions are to be implemented and prepared for the future is played by the criterion of their effectiveness. This criterion also affects the selection and orientation of innovative actions at lower levels. As has been pointed out above, this criterion must encompass such changes in the structure of economic behavior that correspond to intensification of the national economy and must at the same time be compatible with the routine manner of posting the economic results of production organisms at various levels. The point is that this criterion transforms the requirement of "achieving a higher rate of generation of national income with available manpower and material resources" into the form of economic indicators and that these economic indicators be interpreted in the specific form which is routinely used in economic life.

The above specified requirement, transformed into economic indicators, means at the macroeconomic level the requirement for maximization of national income with minimization of consumption for production operations, at the level of enterprises and supraplant entities it then means an accelerated growth of adjusted value added in comparison with the development of material expenses and an accelerated growth of profit within the adjusted value added.

In most innovative actions, it is possible to measure their effect on economic development by affecting the development of adjusted value added, material costs and profit, either directly, or (in innovative actions that include qualitative changes of products) through their effect of the structure of wholesale prices and on changes in the share of individual items included in the calculations. It is this type of measuring the effects of innovative actions on economic results that has already found application in selected enterprises.

The innovative process, which became the decisive, and practically the only, source for development of our national economy, is a complicated and horizontally as well as vertically interlinked complex of progressive changes in production and in the entire national economy. Its preparation, introduction

and implementation cannot be regarded as an affair for a certain group of professionals, but a matter of concern to whole production teams, to society as a whole. "Implementation of scientific and technological development is truly the revolutionary task of our society as a whole," were the words echoed from the speakers stand at the 16th CPCZ Congress.

In the process of improving production and products, increasing use will have to be made of the vast production experience of work teams that are the primary source of innovative actions in the sphere of efficiency, but which are also essential for expedient successful implementation of more important changes in technology, production equipment and products. Of particular importance to acceleration of the innovative process and its high effectiveness is continued expansion of collective forms of socialist competition, development of cooperation among research, developmental and managerial personnel with work teams in production units. The focal point of socialist competition and of voluntary efforts by creative teams is currently shifting into the sphere of improving production and making it more efficient. In this direction point the resolutions of the 10th All-Trade Union Congress, the Third Congress of the SSM [Socialist Youth Association] and the Ninth Congress of the SCSP [Association for Czechoslovak-Soviet Friendship] in 1982. In the same spirit of providing support for accelerated intensification of our national economy, the Czechoslovak Scientific and Technical Society is making preparations for its sixth congress in April 1983. Its task will be to further concentrate the efforts of collectives and of individual members for providing support in implementation of key directions and prerequisites for improving the efficiency of production, improving the utilitarian properties of products with simultaneous reduction of their demands on production with maximum application of intensive factors in production. The demanding process of accomplishing the transition of our economy onto a path of intensive development will be successfully accomplished the sooner, the more effectively we make use of the tremendous creative potential of personnel in all branches of the national economy.

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ECONOMIC COLLEGE RECTOR DEPLORES SHORTAGE OF ECONOMISTS

Prague NOVA MYSL in Czech No 3, Mar 83 pp 123-131

[Article by Stanislav Hradecky, rector of Advanced School of Economics, Prague: "Education as a Significant Factor in the Development of Socialist Society"]

[Text] The requirement for intensification of the national economy belongs among the most important conclusions reached by the 16th CPCZ Congress in the area of economic policy. Our entire economic development to date confirms the topical nature of intensification in everyday economic practice as well as the longterm nature of this process. Intensification of the national economy is a constant prerequisite for improved dynamics and effectiveness of economic development.

There is considerable variance in the specific results achieved through intensification. After all, it is rather difficult to assess them in a relatively short time span. However, as follows from analyses of the process of economic renewal, the share of intensive factors in the development of the economy is still low and the rate of their implementation does not meet the needs of the national economy. Deepening and accelerating of intensification, particularly in the area of saving of resources, utilization of science and technology and participation by the CSSR economy in international division of labor, primarily in the framework of socialist economic integration, remains the key and decisive prerequisite for the desirable orientation of our economic and social development.

Scientific and technological development is the most important factor in intensification. We are justified in striving for new improved production technologies, viable innovation of products that would create new utilitarian values in the form of technically and economically perfect products. However, scientific and technological development cannot be narrowed merely to denoting new equipment. Of decisive importance for the quality and economic effectiveness of scientific and technological development is utilization of the education and qualifications of personnel.

Manpower is the decisive component of production potential. Requirements on qualification of manpower register a substantial increase during a period of scientific and technological revolution. An increase in the share of highly

qualified labor and, conversely, a decrease in unskilled or semiskilled labor is an objective law of social development. Qualitative changes in production brought about by scientific and technological development change the structure of the expended social labor, to put it in Marx' words, from simple work to complicated work, i.e., efforts of scientists, planners, designers, technologists, managerial personnel. Technical development and rapid changes in production underline the role of theoretical knowledge, an increased need for education and culture.

Education, as is well known, does not constitute the only, exclusive aspect of qualification. Qualification includes creative capabilities, practical experience, political maturity, moral virtues, the capability to manage and work with people. Nevertheless, education does, without a doubt, form the basic and the most decisive aspect of qualification. Education makes it possible to develop and multiply the other aspects of qualification. Experience shows that the higher the theoretical knowledge of personnel, the more rapidly are they capable of acquiring practical experience and adapting themselves to practice. Under conditions of intensive development, the role of qualification and education assumes more importance and becomes an essential, yet relatively easily mobilized, resource for economic development.

When we emphasize the economic function of education, it does not mean that we underestimate its cultural and social function in the larger societal context. Education represents the most important aspect of all-round human growth which is one of the basic goals of the socialist society.

A socialist society is characterized by the fact that development of education is in harmony with the social, economic and cultural objectives in the development of society as a whole. Changes in the scope and forms of social labor find their reflection in the planned development of the educational system and other educational institutions. This is characterized primarily by the document regarding continued development of the Czechoslovak educational system approved in 1976 by the highest state and party organs. It involves a document of long-term validity which encompasses the concept of thematic contents, forms and methods for development of individual levels and components of the educational system, to include their mutual interrelations and the needs for their material and cadre backup. The document makes it not only possible, but almost a prerequisite that all the relevant relationships in the educational system be continuously improved and updated with the objective of continuous improvements in the quality of education closely tied to the needs of individual sectors of the national economy.

The current level and structure of education of the populace is the result of the long-term development of society and of the entire educational system. Pre-Munich Czechoslovakia already belonged among countries with a relatively high level of education. However, it was not until after 1948 that, during the course of socialist construction, secondary-level education in general and higher education in particular underwent a tempestuous development. In the 50s came the establishment of a number of new institutions and schools of higher learning, whereby Czechoslovakia acquired an integrated, comprehensive system of institutions of higher learning that in its profile meets

the needs of industrialization and building of socialism. The fact of particular importance, one that also signifies one of the most outstanding advantages offered by socialism, was that wide access to secondary and, particularly, higher education was opened up for youth from the tanks of workers and farmers. Students from worker and farmer families form a long-term and permanent majority in the overall number of students. This ratio is fully compatible with the social structure of our society. One of the accomplishments of socialist development of our educational system was the relatively accelerated development of education in Slovakia which forms a suitable basis for balancing the economic and cultural level of the two fraternal nations.

In the years of developed socialism, we achieved a high level of education of the populace in all social groups and categories. There was an increase in the number of qualified workers and in specialists with high school and college education. An absolute majority of youth completing their compulsory school attendance at basic schools level continue their vocational training at high schools or at specialized institutions.

In 1980, from among 96 percent of youth of the corresponding age group 39.7 percent entered classical and specialized high schools and the other 56.3 percent went on to study in vocational schools. Development of the secondary education system made possible planned increases in the number of students at institutions of higher learning. From 1960 to 1982, the number of such students at institutions of higher learning increased from 65,000 to 152,000 and, thus, amounted to 233.8 percent of the initial state (208.9 percent in the CSR and 290 percent in the SSR). A rapid increase also occurred in study courses for employed personnel; the number of students amounted in 1982 to 24,000 in the CSR and to 18,000 in the SSR. Increases in the number of students also produced increases in the number of graduates. While 19,200 persons graduated from institutions of higher learning in 1970, by 1981 their number increased to as many as 31,000; among graduates of secondary schools the increase for the same period was from 102,000 to 110,000.

Educational development found a positive reflection in the structure of occupational qualifications in the CSSR.

According to the data from the last census (as of 1 November 1980) the national economy of the CSSR employed 7.8 million persons (the economically active category). Among them over 2 million had high school education, 2.5 million were trained workers and 583,000 had college education. Comparing this situation with 1950, we find that the share of high school graduates and trained workers in the overall number of economically active populace increased from 16 to 60 percent and for college graduates from not quite 1 percent to 7.4 percent.

The relatively high level of education in the CSSR is borne out also by international comparisons. We occupy one of the leading positions (comparing advanced socialist and capitalist countries) in the average length of educational studies and in the high share of specialists in the overall number of economically active persons. However, some countries have been getting

ahead of us over the past several years in the rate of increase in the number of college students. This fact should be subjected to a thorough analysis and taken into consideration in determining the number of students to be admitted to the first year of study at institutions of higher learning.

The attained level of education of the populace can be regarded only as a potential source of economic growth. The effectiveness, actual utilization, of this source depends on a number of additional factors the most important among which are effective utilization of the qualifications acquired through education and, further, distribution of qualified specialists into individual sectors of the national economy for the requisite activities or posts.

Let us first deal briefly with the problem of utilization of qualified manpower.

The CSSR has achieved a high level of employment. Additional supply of manpower (releasing manpower from agriculture, inclusion of working-age women, workers in postproductive age, etc.) was an important factor in economic growth particularly in the period of the initial 5-year plans. This increment in manpower was one of the extensive factors in development, a factor which was desirable and effective in its time. However, we have no free sources of manpower at our disposal at the present time. Natural population increments in the remaining years of the current 5-year plan will be negligible. Extensive sources of growth have become exhausted and what matters now is to replace them by an intensive source, i.e., improved utilization of manpower. If this requirement is valid in general, it applies doubly to manpower with the highest level of qualification. A low level of utilization of qualified manpower, particularly graduates of institutions of higher learning, brings about losses to the national economy in several directions.

It slows down the "return on investment" made into education (direct and indirect expenditures per college student added up for the entire period of his studies are estimates at KCS 500,000 to 700,000), but it is also one of the causes for the low level of utilization of raw materials, energy, fixed assets and other resources in the national economy. It is known from numerous analyses that for the time being we are not achieving the requisite technical level of our products, that many of our products have limited compatibility in the competition of the world's markets, that the level of our innovation activities is low, that we make slow and inadequate use of scientific and technological development, that the potential for actual application of research results is low, the cycle from research to production and consumption is too long. It is not the intent of this article to document these unfavorable phenomena by figures. The strategic orientation of the 16th Congress toward efficiency and quality of all labor is specifically directed toward elimination of these shortcomings.

The mentioned unfavorable facts stand as witness to the fact that the actual results achieved by the national economy are inadequate in view of the attained high level of education, level of qualification and the structure of qualification of the populace. This situation is due to the fact that we make inadequate use of qualifications and education in our country. It is specifically this area that could constitute for us one of the potential sources for intensive development.

Inadequate utilization of qualifications can also be judged from other aspects. Statistical surveys from 1978 reveal that a full 38 percent of all posts for which the corresponding catalogues prescribe college education are held by personnel with a lower educational level, in some cases with just basic education. In some industrial sectors such personnel amounts to up to 50 percent.

The total number of such personnel amounted to 215,000 (in 1978). It is probable that this high number was generated in the 60s through the existence of the so-called plant institutes in ministerial departments, four-semester qualifying courses at some institutions of higher learning, etc. This education was counted within the framework of ministerial departments for the graduates of these special forms as graduation from an institution of higher learning. This system understandably cannot be regarded as correct and it did show its failure. The various decrees which made such substitutions for college education possible were rescinded a long time ago. However, if we have a closer look at the age structure of the graduates of these substitute forms of study we can see that a full 28 percent represent the age category up to 30 years of age and 56 percent the 30-49 year category. Thus, it appears that there occurs reproduction of these categories of personnel, a fact which definitely is not desirable at the present conditions.

Similarly unsatisfactory is the meeting of requirements for education in posts in which a full secondary school education is prescribed (66 percent). Still a considerable number of personnel (295,300 in 1978, i.e., 14.5 percent) from the total number of personnel in other than worker categories have only basic education, but hold posts which call for a higher educational level.

On the other hand, a relatively considerable number of college graduates (9.7 percent) and secondary school graduates (10.2 percent) held posts for which a lower educational level was called for (data from 1978).

It stands to reason that every deviation between the required and actually attained educational level cannot be regarded as underestimating qualification. We have already pointed out earlier that education is only one of the constituents of qualification. It is also obvious that in our country, just as in other advanced countries, the secondary education level will find application in some worker category qualifications. Such a development is the specific result of scientific and technological development which brings about qualitative changes in the nature of labor. In certain operations, there are occurring changes in the role and productive function of workers; instead of physical labor, to an ever increasing degree workers are controlling and managing technological processes. There has been a decrease in the share of conventional production workers, new workers' professions are springing up that call for secondary-level or, in some cases, even college-level qualifications. Insofar as college graduates are assigned to workers posts for other reasons, e.g., as a result of the so-called relative excess of graduates in certain academic disciplines, it can be tolerated as a temporary, short-term solution facilitating achievement of a chronological span in the discrepancy between the demand for and supply of college graduates. However, under conditions where availability of such specialists in the national

economy appears to be inadequate, such practices amount to wasting and loss of resources that society had expended to make the studies of these specialists possible.

Let us now focus our attention on another basic problem, namely the distribution of college graduates into individual sectors of the national economy and the relevant activities and posts.

Implementation of the desirable structural changes in the national economy cannot be carried out without commensurate concentration of qualified manpower in developmentally viable production sectors, particularly in preproduction stages.

Efforts at innovation, technological level, quality and efficiency all find their birth in the preproduction stage after they had been conceived in research and development [R&D]. R&D institutions with qualified manpower, an optimum ratio in the number and qualification of this manpower to that of personnel in other stages of the economic renewal process constitutes, as is borne out by international comparisons, one of the prerequisites for economy's adaptability to new conditions.

During the period of building of socialist, Czechoslovakia established an extensive R&D base. By 1981, this base had a total of 407 independent organizations. It employed almost 181,000 personnel, i.e., 2.4 percent of the economically active populace. This share makes us even or puts us ahead of some industrially advanced countries with a high level of innovative dynamism. However, less favorable for us is a comparison of the structure of qualifications of personnel active in the R&D base and its distribution among sectors and branches. Providing organizations of the R&D base with personnel of college-level qualifications who, in spite of certain increases over the past several years amounted by 1981 to only 30.3 percent, can only be termed as totally inadequate. That is substantially less than in other advanced countries. Another shortcoming is constituted by the fact that the capacity of the scientific research base is considerably splintered among individual sectors and branches; little is done to achieve the desirable concentration of this capacity in key sectors from the viewpoint of the requisite innovations and structural changes. Key developmental sectors of electronics, machine building, chemistry and metallurgy in advanced countries show a 90 percent concentration of capacity, in our country it is only about 74 percent.

Inadequate attention paid to priorities is also evinced by the distribution of college graduates into individual branches. The key position in the national economy is held, without a doubt, by industry. Its leading role is due primarily to its share in generation of the national income, the role industry plays in effective participation by the Czechoslovak economy in international distribution of labor and its function of providing other branches with new technology. Technological development in industry, the need for innovations and structural changes pose special requirements on providing this sector with qualified manpower. The share of industry in the overall manpower engaged in the national economy is almost 40 percent, but in the overall number of personnel with college education it is only 18 percent.

Industry as a whole (to include its research base) employed in 1980 3.3 percent of personnel with college level education, 4.1 percent of them in machine building, 3.2 percent in the electronics industry. At the same time the number of college-trained personnel in the construction industry reached 6 percent and in agriculture 3 percent. It is not without interest to note that the electronic industry, which is to perform a significant role in our economy and should receive all manner of preference, is in 9th place among 18 industrial branches in the number of college graduates and is as low as 11th place in the amount of average wages.

The low share of college-trained specialists in Czechoslovak industry is also evinced by international comparisons. We lag behind not only advanced capitalist countries, but even behind most socialist countries (USSR, Hungary, Bulgaria, Poland). Foreign sources indicate that the level of productivity of labor in industrial branches is directly dependent on providing these branches with qualified manpower. This fact still has not found full appreciation in our country. Average data for industry as a whole, or for individual branches of industry, tend to obscure the disproportions in qualifications within these branches, particularly as regards key technological functions. It is downright perplexing to contemplate that, e.g., the share of college-trained specialists in the category of designers and technologists has for years been ranging around 20 percent. Most personnel in these categories have a high school education, and many of them only basic education.

The cited shortcomings are not occasioned by institutions of higher learning turning out too few college-trained specialists for industry and its branches. Let us consider several additional figures:

In 1978, the CSSR had about 100,000 specialists with college education in technical disciplines with industrial orientation, 36.8 percent of them in mechanical engineering. At the same time, industry employed over 75,000 college-trained specialists, at least 15,000 of whom were graduates of economic, legal and other orientations. That means that only about 60 percent of specialists in technical disciplines who had been trained for industry actually find application in the industry. A potential 30 percent of all students at institutions of higher learning are being trained for industry, however, only 18 percent of the total number of specialists with that level of education find employment in industry. What is the cause for this low share of college-trained personnel in Czechoslovak industry and, within it, particularly the share of branches and productions with a demand for highly qualified manpower, which is considerably lower than in industrially advanced countries. The share of these branches in the CSSR amounts to approximately 20 percent of overall industrial production, but in industrially advanced countries it amounts to 30 to 50 percent. Unfavorable consequences of this structure also became evident in foreign trade where, instead of a larger amount of complex and highly qualified labor, we use a larger amount of simple, unskilled labor for which our resources are limited and the exportation of which is ineffective. It is further occasioned by the technological level of fixed assets and of the production process which in spite of a high rate of investment grows only slowly. The current technological level of production even in the case of demanding technological functions makes it possible to supplant college-level education by a lower educational level. It is not a conducive to fostering changes in the nature of labor, it does not call

for higher demands on qualification. On the other hand, it is just this unfavorable structure of qualifications which constitutes one of the causes for the relatively low level of production.

One of the key causes for shortcomings in distribution and utilization of college-trained specialist is, without a doubt, wage policy. Wage policy must also act as a stimulus toward effective utilization of labor. Even though wages must inevitably reflect other factors in addition to qualification, it should also respect the principle that higher costs for reproduction of qualified manpower also make it possible, in the economic sense, to perform more complicated labor and, thus, provide a higher input into the national income. However, this principle finds only insignificant reflection in wage policy. Wages and salaries did not always provide a stimulus for acquiring a higher level of qualification and even now play a very limited role in distribution of manpower. Wage differentiation between administrative/technical personnel and workers is generally low. This applies even to areas in which shortages in qualifications are felt the most, e.g., in mechanical engineering and the electrotechnical industry, further in R&D in all branches and elsewhere. From among nonproductive sectors, the greatest imbalance between the level of qualification and average wages appears in the educational system. Wage relations do not provide the incentive for college-trained specialists to accept greater responsibility, because they can receive the same, and sometimes even higher, remuneration even in posts calling for lower educational levels.

Problems attendant to distribution and utilization of college-trained specialists are not due merely to shortcomings in economic practice. Equally serious causes can be looked for in the graduates themselves and in the educational efforts developed by institutions of higher learning. A college diploma per se does not create a socialist specialist. Theoretical talents, political maturity, enterprise, courage can be evinced only by real work, by specific results. College graduates, just because they are specialists with the highest level of qualification, must see their social role in dedicated work for the socialist society. That means, among other things, to take a job and work where the society needs it. Experience shows that many graduates seek to find a job only in the capital, that they attempt to find attractive jobs without regard to the discipline they studied, that they often give preference to comfort, a sheltered job without conflicts. This still leaves a wide range of action for educational and political activities of institutions of higher learning, their officials and pedagogues.

The authority of college graduates is also constituted by the quality of their knowledge. The latter is itself already affected by the selection of students for admission to institutions of higher learning, the thematic contents and organization of studies. Many conceptual efforts were developed at institutions of higher learning in this respect, efforts that culminated in thematic restructuring of studies. What it involved was to create in organization of studies and the concept of instruction conditions for continuous innovation of thematic contents in relation to the latest scientific findings. It involved devising an integrated system of instruction which is not just a mechanical sum of a number of subjects, but a single logical entity with

emphasis on creative thinking and course of action. This restructuring also involved optimization of the duration of studies, which in a number of disciplines meant cutting down studies by 1 year. Such shortening of studies, as experience shows, need not mean a lower level in the quality of the graduates' knowledge. It does not have that connotation simply because the reduction in the time available for studies was for all practical purposes balanced by improved utilization of the school year, more efficient organization of the teaching and learning process. Shortening of studies was also designed to help create capacitive, economic and thematic prerequisites for conceptual development of postgraduate studies that cannot be dispensed with at today's tempestuous rate of development in science.

One of the basic requirements that have been implemented at institutions of higher learning over the past decade was to endow graduates with a broad profile of background knowledge. Narrow study disciplines which we had by the hundreds in the past proved ineffective. They were, and still are, one of the reasons for high turnover of college graduates and limited use of qualifications. The need for a broad profile is topical even now, because it improves the adaptability of graduates to practice and their professional mobility.

The quality of graduates depends to a considerable extent also on the material backing provided for the efforts of institutions of higher learning. While some disciplines of study are stagnating in regard to the number of students, steep increases in the number of students are occurring at other institutions of higher learning. However, cadre space, instrumentation and other facilities are lagging far behind the tempestuous dynamics in the growth in the number of students. Considerable and unjustified differences exist between individual institutions of higher learning in regard to their material backup. It is not possible to keep improving the quality of the pedagogical and educational process if material conditions keep deteriorating.

Socialist society has objective interest in improving the use of qualifications. In order to establish harmony between the need of the national economy and the required structure of qualifications, it is imperative that development of the educational system, to include the numbers and structure of student bodies, be planned with a lead of at least 10 years. The existing methodology of this planning is inadequate. It is based on summarizing the requirements of ministerial departments and is also based more on estimates than on reliable documentation. We lack a scientific methodology for determining the needs of college-level qualifications. It should be based primarily on a prognosis of the development of the national economy, development of science and technology, changes in the structure of the economy, the need of socialist economic integration. That is a matter of concern to not only central authorities. Institutions of higher learning themselves should have a higher share than has been the case so far in assessment and prediction of the trends in development of these factors in their own speciality and, thus, a more objective determination of the needs for qualified manpower.

Qualification and education of its people constitutes one of the greatest assets of a socialist society. Let us learn how to manage these assets well and for the benefit of our society.

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UNIONS COMPLAIN OF LAG IN KHOZRASCHET, INNOVATION PROGRAMS

Bratislava PRAVDA in Slovak 14 Mar 83 p 3

[Interview with Otto Moncman, member of the Central Control and Review Committee of the CPSL and secretary of the Slovak Trade Union Council, by PRAVDA editor Viera Sladeckova: "The Profile of Subjective Causes for Certain Shortcomings"; date and place not given]

[Text] "Trade unions actively participate in formulation, implementation and control of state policies, compilation and meeting of plans for the national economy, in control of the activities of plants and enterprises."

(G. Husak at the 16th CPCZ Congress)

Practical implementation of the social and economic function of trade unions achieves positive results that represent an obvious contribution to meeting the objectives for economic and social development of our country even after the 16th CPCZ Congress and the 10th All Trade Union Congress. However, they are accompanied by certain shortcomings that are closely linked to inadequate encouragement of participation of workers in management. We are publishing a substantial part of an interview conducted by our editor Viera Sladeckova with Otto Moncman member of CPSL Central Control and Review Committee and secretary of the Slovak Trade Union Council, about the profile of the subjective causes of some shortcomings.

[Question] On the basis of the joint course of action adopted last year by the SSR government and the Slovak Trade Union Council (SOR) in regards the tasks for 1983, both partners called for the closest possible cooperation and collaboration by state, economic and trade union organs at all levels of management as well as in the area of participation of workers in management of production. Assessment of the results of this participation by workers reveals many obvious positive aspects. However, we reached an agreement that today we shall discuss the unused resources, shortcomings that occurred due to subjective causes. How did they become manifested?

[Answer] There is no doubt that the positive aspects prevail, but we cannot afford to disregard the negative aspects, either. As the most significant among the latter, we regard the low level of working out the general principles

and objectives for implementation counterplanning to fit the specific conditions and needs of an organization and the relevant inadequate dialogue with workers about the tasks of the plan for 1983. One of the arguments advanced in unison by economic and trade union organizations as a reason for inadequate familiarization of workers with the objectives of the plan is the insufficient time span allowed for these activities. However, the opposite is the truth: the work schedule for planning allowed a sufficient time span for governmental agencies, VHI [economic production units] and enterprises to work out the tasks of the plan for 1983. It turned out, however, particularly at enterprise level, that the demanding nature of the tasks was underestimated, their lack of preparation and indecisive nature cutting down every year on the time left for active participation by workers in compilation of the plan. A retarding factor is also a less than systematic objectivization of norms of all types, low level of implementing khozraschet [cost accounting system] in specific workplaces. It stands to reason that wherever the workers are insufficiently informed, they cannot fully develop their activating function. Lack of familiarity with the tasks as well as with the results of their efforts is not conducive to developing the requisite pressure "from below" for improved economy and quality.

While implementation counterplans were adopted by over 50 percent of organizations managed by the SSR Government, as a result of the already-mentioned but also some additional subjective shortcomings, the requisite qualitative change in the approach to compilation of the annual implementation plan failed to materialize. For example, there was no systematic implementation of the adopted challenging tasks, such as exports to nonsocialist countries, lower demand on imports, the others that would particularly serve to characterize the quality of economic activities.

Comments and proposals offered by workers in discussions of the plan serve not only as a basis for adoption of the implementation counterplan, but also for adoption of the position of the ZV ROH [plant organization of the Revolutionary Trade Union Movement] to the plan proposal. The mentioned shortcomings prevented not only any significant increase in the number, but also in the quality of the adopted positions. Namely, the positions inadequately pointed out the potential sources of unused resources, failed to generalize the opinions and comments offered by workers, and even not only in isolated cases the ZV ROH acted as the "devil's advocate" for economic management. Under such conditions, it is then difficult to promote the principle that discussions of the plan by the superior organ should consider the position of the ZV ROH as equivalent to all other components of the plan, as it is designed to help in dealing with shortcomings and improve the quality of participation by workers in management.

[Question] Basic organizations of the ROH discussed and approved in December of last year the plans for this year's activities. At the occasion of the Fourth Plenum of the SOR, it was pointed out that these plans for activities predominantly reflect sectorial tasks and those that were stipulated by the 10th All Trade Union Congress have as their objective steeped-up support for implementation of the adopted plans, forming in that manner the prerequisites for adoption of future implementation counterplans for 1984. However,

the negative aspects were once again pointed out.

[Answer] Yes. Particularly in the respect that inadequate attention is devoted to preparation of informal promotion of activity plans, specifically as regards improving the quality of the base for standardization and intra-plant khozraschet. Yet their weakest point is their concept of the area of political and organizational activities, as many plant committees seem not to know how to find a sufficiently effective form for improving thematic contents and preparation of membership meetings and conferences. This must also be seen as the reason which retards development of effective trade union activities in some enterprises, at many workplaces.

Even though we are now discussing primarily shortcomings and their subjective causes, I should like to point out that considerable attention is being correctly devoted in plans of activities, primarily in basic ROH organizations, to the savings of fuels, energy, materials and metals; it is envisioned to use innovation as a path to increasing the share of products classified as being of the first-category quality; increased production of products in shortage for the domestic market; cutting down on unfinished construction projects simultaneously under construction; an even pace in carrying out planned tasks and developing services for the populace.

[Question] Collective bargaining agreements for 1983 are to be concluded as of 15 February this year to be then submitted for recording to superior economic and corresponding trade union organs. What has been your experience with preparation of these basic documents that also express the legal aspects of the relationship between the ZV ROH and the plant or enterprise management? In what do subjective shortcomings become manifested?

[Answer] Well, once again we find lack of systematic implementation of the requirement that preparation of plan proposals be accompanied by working out a proposal for a collective bargaining agreement. There are many organizations that bide their time until a definitive breakdown of the plan. The situation in preparation and approval of trade union collective bargaining agreements is no better. An absolute majority of economic and trade union organs failed to carry out the resolution of the Second Plenum of URO calling for collective bargaining agreements by trade unions to be completed by end of October 1982. That is the result of inadequate preparation of leading managerial personnel at general management level and in sectorial committees of the ROH, but also of insufficient care by personnel in ministries and trade union associations. More than half of collective bargaining agreements are concluded after the deadline, particularly at enterprise level. That is a warning sign that must not be left unnoticed.

[Question] What are the shortcomings in the contents of proposed collective bargaining agreements?

[Answer] We still encounter collective bargaining agreements with thematically imbalanced parts and exceedingly narrowed down individual chapters. To put it in other words: the way in which tasks specified in joint documents of the SSR Government and SOR are reflected in proposals of collective bargain-

ing agreements is neither systematic nor comprehensive. It is particularly the area of implementation of planned tasks that requires a more systematic and informal devising of active measures whose implementation will warrant attainment of goals. Attention in the area of incentives should be focused primarily on working out specific wage policy measures, differentiation in remuneration, improved efficiency of labor and standardization. The implementation and control of collective bargaining agreements is as important as their thematic contents. For that reason, more care than usual will have to be devoted in the current year to preparation and carrying out of public verifications of their implementation. This is an important political task which according to existing experience is not systematically carried out in all places that it should be. I must also point a critical finger at the insufficient interest shown by higher economic and trade union organs in collective bargaining agreements in general.

[Question] Participation by workers in management was also expected to become significantly reflected in a joint assessment of the management of fuels, energy and propellants. Did that actually occur?

[Answer] In many cases it did, in many cases it did not. Trade union organizations were direct participants in this assessment, but not in all cases did they manage to attract and involve into this creative process leaders of socialist work brigades, leaders of expeditor teams, outstanding individuals--leading workers, laureates of awards and prizes. This narrowed down the extent of participation by workers in this economically important process which such joint assessment has been till now and will remain in subsequent stages. Nor have its provisions been incorporated into collective bargaining agreements everywhere either.

[Question] A worker's initiative for adoption of socialist pledges to honor the 35th anniversary of the Victorious February since the beginning of the current year has been developing. In this area of trade union activities, there also appear--even though not on a mass scale--certain shortcomings which also cannot be considered to be due to objective causes. Which of them would you particularly like to point out?

[Answer] Slovak committees of trade union associations, sectorial, regional and plant committees of the ROH must abstain from the vague concept of some generalized organization of socialist competition. What counts at the present is not the number of forms for expressing worker initiative, but promotion and support of the most effective forms that under the given economic situation would warrant meeting and exceeding the tasks planned for 1983. That means forms which will provide significant help in meeting and exceeding the stipulated production and all economic goals. Among the viable forms of worker initiative belongs without a doubt the movement of inventors and improvement promoters, expeditor teams, brigades of socialist labor, personal and collective creative plans of engineers and technicians.

Instead of providing active support for dealing with the tasks of the plan, the movement of inventors and improvement promoters must often scale many barriers, assert itself against the blockage thrown up by paper shuffling and red tape. We were rightfully expecting that economic pressures of the principles of the

Set of Measures for Improving the Planned Management System of National Economy would create a hunger for technical solutions in economic organizations. Alas, other than an increase in the number of applications for patents for inventions and improvement suggestions, there can be no mention of their real contributions of any significance, because a considerable number of them still remain unexpedited. At the Fourth plenum of the SOR, we unanimously condemned tendencies toward an ever increasing number of awards paid for achieved societal contributions having to be decided through arbitration proceedings, or even through litigation in courts. Union organs must resolutely demand that plans for thematic tasks follow up on the needs of implementation plans; that thematic tasks serve as a medium for systematic implementation of goals designed to reduce demand on materials, effect savings of fuels and energy, improve the quality of products and the productivity of labor. A virtually alarming signal is stagnation (and in many a case a downright decline) in expeditor teams. This situation must be expediently analyzed in organizations to find a way out--different ways under different conditions.

[Question] This brings us to the problems of technical creative initiative. The demanding nature of current economic tasks calls for increased input of creative technical know-how. What do you perceive as subjective causes of shortcomings and how can they be dealt with?

[Answer] Competition among technical creative intelligentsia does not really meet current needs, is not up to the tasks facing it. For example, in the follow up on the tasks planned for the current year there must take place, as soon as possible, a serious analysis of personal and collective creative plans of engineering and technical, scientific and managerial personnel. Experience in development of this form of initiative, dealt with by some district and regional trade union councils and Slovak committees of trade union associations, unequivocally pointed out serious shortcomings. Among them: unfamiliarity with Federal Government Resolution No. 42 and the resolution of the Presidium of the CPCZ Central Committee regarding the Set of Measures for Improving the Planned Management System of National Economy from January 1980. It is they that specifically recommend using and supporting the form of personal and collective creative plans of engineering and technical, scientific and managerial personnel and using them as a means for developing competition particularly in preproduction stages. At the Third Plenum of the SOR, we stated that we perceive the reason for shortcomings in, among other things, the fact that many ministerial departments failed to work out to date uniform methodological principles for orienting this initiative. It is high time to switch from making statements to initiating redress! The first steps were taken in basic organizations of trade union associations of workers in the metal-working industry, agriculture, transportation and highway management, textile, clothing and leather industry. In spite of some satisfactory achievements, competition in preproduction stages remains at a low level, creative plans fail to provide solutions to key problems in implementation of the economic, scientific and technical policy of the party. We have pointed out many a time that underestimating the development of competition in the ranks of engineering, technical, scientific and managerial personnel while facing qualitatively more demanding tasks is equivalent to a failure to fully appreciate the significance of the party's strategic policy. Many research in-

stitutes and scientific centers do achieve outstanding results that in a decisive measure affect the improvement of the technical level of production and top features of products. Among them is the Research Institute of the Metal-working Industry in Presov and from the Slovak Academy of Sciences mainly its institutes: materials and machinery mechanics (with 21 patent applications for inventions), chemical (with 28 inventions), metrology and metrological technology (with 9 inventions). On the other hand, a dose of self-criticism ought to be applied to contemplation of creative initiative (absence of inventions) in the academy's institutes of physics, geology, hydrology and hydraulics, molecular biology and physiology of livestock. Also all relevant trade union associations should verify the activities in all research institutes and the scientific research base in the area of the movement of inventors and improvement promoters, find the causes for any lagging and adopt effective measures. The research and scientific front must fight in the front line in the struggle for efficiency and quality, not "in reserve." These facts, among others, were also analyzed at the occasion of All-Slovak consultations of chairmen of Slovak committees of trade union associations, regional trade union councils and the Trade Union Council of Bratislava in January of the current year.

Trade union organs must demand that economic organs work out solutions to technical and economic problems that can positively affect intensification of production processes and turn them over to expeditor teams. What cannot be handled by a single team, can be handled by a combination of expeditor teams composed of several teams from plants, enterprises, research and scientific institutes and institutions of higher learning. It is incomprehensible that such a great opportunity--chance--is wasted. A positive example can be provided by a caring attitude by more trade union organizations and by greater understanding by managerial personnel in plants, enterprises, research and scientific centers, among them, e.g., in the East Slovak Kraj, where socialist competition in preproduction stages is effectively developing.

In mid-March of this year a joint session of the Presidium of SSR Government and the secretariat of the SOR will take place. We shall jointly discuss the problems of improving the level of technical creative initiative, improved attention by state and economic organs to the movement of inventors and improvement promoters, as well as improving the quality of thematic planning, activities of expeditor teams and other problems.

Some of the shortcomings which are due to subjective causes and formed the subject of this interview could understandably not exhaust the considerable scope of this topic in its entirety. We pointed out where and in what there are sources that can be mobilized--unused resources for stepped up activity and fuller utilization of worker initiative. It turned out unequivocally that the causative agent for the subjective causes of some shortcomings that were discussed is the human factor, i.e., people: with varying jurisdictions, functions, positions, work assignments. Thus, the function of communists in trade unions, which they cannot delegate is to develop effective efforts to translate subjective causes of shortcomings as an unused resource as expeditiously as possible into a socially beneficial asset. What it involves, in essence, is replacement of inconsistency by principled, ideologically aware performance.

8204

CSO: 2400/190

SOCIALIST TYPE 'QUALITY CIRCLE' IMPLEMENTATION VIEWED

Prague RUDE PRAVO in Czech 18 Mar 83 p 3

[Article by Josef Jedlicka "Birth of Child of Set of Measure --Komarno Shipyards Also Generating a New Form of Initiative"]

[Text] The whole affair imbues one with feelings resembling the birth of a child in spite of the fact that in the austere, matter-of-fact language of economists it involves a part of the Set of Measures for Improving the Planned Management System of the National Economy, specifically a new form of organization of labor and its remuneration--a brigade-type form. The point being its interim experimental introduction and verification in advanced work teams. The decision was made by the federal government in November of 1980. The secretariat of the URO [Central Trade Union Council] and the CSSR Ministry of Labor and Social Affairs then determined along what principles and under what circumstances it is to be implemented. In keeping with the above, individual ministries together with the corresponding trade union associations selected 130 enterprises and plants with the recommendation to launch the experiment.

Among them are also the Heavy Machinery Plants, Shipyards of Gabor Steiner in Komarno--the largest and most modern producer of river and lake navigation boats in Central Europe. Their personnel form a large, advanced collective with rich experience in developing the existing advanced work processes and socialist competition. This effort is headed by a numerically strong, organizationally and ideologically unified plant organization of communists. Thanks to this, the entire workteam of the huge enterprise on the banks of the Danube form the core of the working class of our southernmost district forming here a strong mainstay for everything that is progressive. It provides an assurance that even the new, very demanding form of organization of labor and its remuneration--a brigade-type form--will be met here with understanding and its roots established.

At the initiative of the regional committee of the Trade Union Association of Workers of the Metal-working industry, the plant management together with the trade union organization selected and gained for the experiment two collectives.

The decision to test the new elements for organization of its work and remuneration was made in plant 01, which engages in shipbuilding, by a 14-member team led by Ludovit Polak. The work of its members consists in drawing from the metallurgical warehouse sheet metals of various dimensions, ridding them of rust, providing them with a coating of primer and straightening them out so that after this preparation they can be marked and cut at the subsequent work station.

"This team was selected because it works at the very start of shipbuilding. It is dependent only on the metallurgical warehouse and does not follow up activities of some other workteam," explains Eng Stefan Pasztor, a member of the CPSL plant committee, and adds: "Thus, it cannot eventually be slowed down by somebody else but, on the contrary, by its good work it can create the prerequisites for the subsequent work station." An official of the Department of Labor Economy, Eng Lubomir Bohunicky, adds: "This work station is technologically closed, it has technically well-justified norms corresponding also to the capacity of its machinery. The amount of work performed is accurately expressed by the number of processed metal sheets. Thus, it was possible to assign to the team without any special problems the specific tasks for the given period and the corresponding amount of wages payable."

Under these conditions the team started definitively working from October 1982 with the proviso that the first assessment of the results will take place a quarter of a year later. "Thus, we managed to create a situation where the brigade knows how much, of what, in what quality and by what deadline and how much it will be paid for it," summarizes the plant manager's deputy for economy, Eng Igor Pcola. "The team encounters a minimum of objective difficulties in carrying out its adopted tasks and thus it depends primarily on the team itself how it will planned its work, organize and manage it and, also, what it will do with the earnings. It really has unusually broad leeway for using the initiative of each individual and for fully applying the principle of pay according to merit. All this fully meets the interests of the plant, the team and each of its members," emphasizes C. Pcola.

"People became aware of this and mind how they use their working time," adds foreman Peter Annus. "They themselves are interested in staring work as soon as the shift commences and in its good progress. They know that the results will be reflected in the pay envelope. This atmosphere makes the team more cohesive, enforces work discipline, reduces job-hopping. Part of the duties of a foreman in the organizing of labor and its remuneration are taken over by the team leader."

An analysis of the last quarter of last year showed that labor productivity at this work station was met to 104.5 percent. The team members earned an average of Kcs 150 more a month than before, but with a significant decrease

in overtime labor, meaning shorter working time and more leisure time. In the present situation they are losing interest in overtime labor.

In plant 02 with predominantly engineering-type production the experiment is participated in by a 20-member team led by Karel Eroes. Its members construct hulls of small boats. This is more or less assembly-type work for which for the time being it is not possible to determine all technically justified performance standards. Therefore some of them are arrived at by estimate.

This work station was also selected for trying out the new form because it is at the very start of the production process and because it turns over a partially completed product. For the monitored 3-month period, labor productivity increased here by a full 20 percent. While overtime work was cut down by more than one-third, there was a significant increase in earnings. Team members refused to work with a man who through his poor work attitude damaged their concerted efforts. They exceeded their assigned tasks while reducing manpower by four workers.

"After this quarter is over we shall once again analyze the progress of the experiment in close detail and familiarize all workers with its results," says the chairman of the wage committee of the plant organization council of the ROH [revolutionary Trade Movement], Frantisek Simon. "The trade union organization together with the plant's management is envisioning gradual formation of workteams that could--in keeping with technical development and a corresponding improvement in the organization of labor--provide in a creative, initiative manner, on the basis of their own khozraschet [cost accounting system], manufacture of final products."

In the Komarno shipyards they do not overestimate the results obtained so far. They know that they are but a germinating seed of something that is very much needed, something that right now calls for a great amount of care and support.

8204

CSO: 2400/207

LIVESTOCK PRODUCTION ASSESSMENT SHOWS CATTLE INCREASE

Bratislava ROLNICKE NOVINY in Slovak 16 Mar 83 p 5

[Article by Eng Ladislav Kysel, SSU [Slovak Bureau of Statistics], Bratislava: "Changes in Livestock Production--More Successful Cattle Raising"]

[Text] Due to lower supplies of fodders from the 1981 harvest and to limited opportunities to import grain fodders, the plan for 1982 envisaged a reduction in the volume of livestock production in values expressed (in constant prices of 1980) at 3.3 percent below the actual production of 1981. In spite of the disadvantageous factors, the tasks planned for livestock production in general were 100.6 percent fulfilled and the volume obtained was no more than 2.7 percent lower compared with 1981.

The basic objectives of the plan in terms of higher livestock inventories were met: last year, the numbers of all main types, with the exception of hogs, increased as follows: cattle 2.4 percent, of which cows 0.2 percent; sheep 2.6 percent, of which ewes 3.5 percent; and poultry 7.2 percent, of which hens 1 percent. Lower increases in cows and a slight drop in the inventories of hogs were affected by their relatively high decline in the private sector. On the other hand, the number of the cattle, not counting cows, raised by small producers increased substantially, up to 9.1 percent, and of sheep to 7 percent.

Cattle-breeding indicators show better results than in previous years. The birth rate of cows in the socialist sector increased 0.8 head to 99.6 calves as compared with 1981. Mortality of calves from birth to 3 months of age declined 0.3 point to 5.5 percent and along with the higher birth rate it affected the production of calves; 95.5 calves per 100 cows were raised, which is 1 calf more than in 1981.

Smaller portions of grain fodders in portions of feed and an inferior quality of bulk fodders in the required structure, particularly during the spring months, had a negative effect on the amount of milk produced by cows as well as on the increments of cattle, especially of fattened ones. Although in the final months of 1981 cows produced on the average more milk than during the same period in 1981, the annual production per cow in the socialist sector was down 45.9 liters to 3,056.7 liters, namely, in the West Slovakia Kraj down 76.7 liters to 3,472.2 liters, in the Central Slovakia Kraj down 25.1 liters to 2,801.4 liters, and in the East Slovakia Kraj down 13.6 liters to 2,618.6 liters.

The average daily increase per head of fattened cattle dropped almost 10 percent below 1981 to 0.66 kg, with the ensuing negative effect on the average live weight at the procurement of slaughter cattle, which was down 19 kg to 438 kg. Similarly, the average increment in the categories of cattle for breeding, including milk-fed calves, remained below the level of the increments obtained in 1981.

Measures controlling the inventory of hogs implemented in 1981 emphasized phasing out inefficient production; they not only envisaged that grain-fodder consumption would drop considerably but also that most efficiency indicators would not reach the standard of the preceding years. Despite the fact that the relative mortality of suckling pigs up to the time of weaning dropped from 6.7 to 6.2 percent, the per sow production of pigs was 0.16 head, i.e., 16.14 pigs below 1981 because of a lower birth rate. In East Slovakia Kraj the production declined by as much as 1 pig.

The average daily weight increase of hogs was down 4.5 percent as compared with 1981 and like the increment in fattened cattle, it was the lowest in the past 13 years. Live weight of slaughter hogs at the time of procurement was also low; even if we disregard the weight obtained in 1981--104 kg--due to a reduction of the herds, the weight was as much as 7 kg below 1980, namely, 103 kg.

Positive results in the development of efficiency were achieved in poultry farming. After egg production per hen declines somewhat in the socialist sector in the past years (1980 and 1981), it increased by 7 eggs over 1981 to 244.4 eggs. Higher production and especially the higher average number of hens throughout the year positively affected total production, which was up 77.8 million eggs. Live weight of fattened poultry, with the exception of geese, dropped slightly (with a negative impact on the supply of slaughter poultry for market production).

The chronically inferior technological standard in sheep farming and the relatively high mortality rate of lambs led to a slow growth in herds of sheep. The number of lambs born in the socialist sector was only barely above 1981. As of 1 January 1982, in conversion per 100 ewes, it dropped by 2 head to 96.1 lambs and the mortality rate of lambs was up from 7.4 to 7.6 percent (the norm is 7 percent).

The tasks of the state plan for the procurement of main types of livestock products, with the exception of milk and slaughter hogs, were met with no major deviations throughout the year. Until the end of the third quarter, milk production was low, which caused problems with procurement and in the processing industry, especially in the production of milk products for our domestic market. The tasks of the plan for procurement of slaughter cattle were exceeded by 4,000 tons, and for procurement of eggs for consumption by 19.2 million eggs. In the structure of slaughter livestock, higher procurement of slaughter cattle helped surpass the plan, but planned tasks for other kinds of slaughter livestock have not been fulfilled. Furthermore, the milk procurement plan fell 20.7 million liters short of its target; because of lower increases in the production of poultry, the plan for the procurement of poultry was 941 tons underfulfilled.

From the territorial point of view, the plan for procurement of slaughter cattle and of eggs for consumption was met in every kraj, of slaughter sheep in the West Slovakia and Central Slovakia krajs, and of slaughter poultry only in West Slovakia Kraj. None of the krajs fulfilled the plan for procurement of slaughter calves, hogs and milk.

In agreement with lower tasks of the plan and also because of the unfulfilled procurement of slaughter hogs, calves and sheep, the total procurement of livestock was 9.8 percent below 1981, although the plan envisaged a 10.6 percent decline. The shortfall in milk and slaughter poultry was lower than in their 1981 procurement. The level of the procurement of eggs for consumption was exceeded as much as 7.2 percent.

The sources of fodder from our domestic production and from imports were the main factors determining the trend in the development of our livestock production, the production of individual products and livestock efficiency. Austerity measures concerning the consumption of grain fodders, based on principles of rational nutrition, generated a whole series of both positive and negative consequences. Among the positive aspects was the more than 10 percent absolute savings of grain fodders (283,000 tons less than 1981 consumption). The production of fodder mixes declined by almost the same degree as the drop in consumption. Relative reduction in consumption was noted in nearly every unit of our livestock production under observation (except for broilers).

The consumption of grain fodders per liter of milk was down from 0.27 to 0.25 kg, in fattened cattle from 2.23 to 1.92 kg per kg of gained weight, and in hogs from 3.93 to 3.86 kg per kg of gained weight, in every piglet raised until weaning from 101.2 to 98.2 kg, in the production of each egg from 0.18 to 0.17 kg, and in fattened poultry (not including broilers) from 3.84 to 3.53 kg per kg of weight increase. In broilers, consumption rose from 2.78 to 2.84 kg.

Feeding portions of grain fodders were cut on the average by 17.2 percent per head in cows, by almost 30 percent in fattened cattle, and by 14.6 percent in hogs, and despite a higher consumption of bulk fodders, that was unfavorably reflected in lower milk production and lower weight gains in fattened cattle and hogs.

The situation in our livestock production at present is characterized by structural changes in favor of the development of cattle production, for more intensive utilization of bulk fodders and for lower consumption of grain fodders. Such changes produced a whole series of problems which were often reflected in less intensive production and in certain cases in an undesirable decline of livestock efficiency.

While the organism of the livestock may be highly adaptable to various changes in its environment, its capacities are not inexhaustible. Therefore, one of the most vital tasks in the future development of our livestock production is to achieve a balance between the organic needs of the livestock and the input of individual nutrients and energy.

9004

CSO: 2400/185

FAILURES OF 1981-1985 PLAN, SHIFT TO BROWN COAL ENERGY ANALYZED

Zurich NEUE ZUERCHER ZEITUNG in German 23 Mar 83 p 23

['Economy' feature article signed 'oo': "Failed Five-Year Plan in the GDR--Declining Foreign Debts"]

[Text] As indicated in a report of the [West Berlin] German Institute for Economic Research (DIW), the GDR has had to abandon the base-lines of the current Five-Year Plan 1981-1985. At the time of its elaboration, the possibility that the Soviet Union might be forced to reduce its oil deliveries by 10 percent and the GDR--its debt position in the West, evidently had not been taken into consideration.

Incisive Adjustments

The changed basic conditions have necessitated--on a short-term basis--adjustments and considerable plan changes. Imports from Western countries--with the exception of the supplies in the intra-German trade--were reduced radically; apparently necessary investment goods and ancillary supplies for current production were also affected by this. The scarcity of material and investments, in turn, led to recourse to incisive control mechanisms; the decision-making latitude of the combines was restricted, investments were put under control, research plans were audited, the drawing up of balance sheets of commodity trade was expanded, and norms for the consumption of material as well as stock-keeping were intensified and quota restrictions were introduced.

The GDR though mastered the problems with some success. The increase in final products could be achieved with an absolutely low input of material and energy. Industrial production during 1982 increased by 3.2 (plan: 4.6) percent. There has been a slowdown in the growth of the most important industrial sectors. In agriculture, quite different results showed up; while the grain harvest, with 10 million tons, reached a new record, animal production was retrogressive--which reflects the strained situation with respect to fodder. Grain was imported in approximately the same volume as in 1981 (3.2 million tons).

Consequences in the Homeland

The reduction in growth to 3 (plan: 4.8) percent has affected domestic use to a particular extent, for, in view of the foreign trade situation, exports had

to be expanded. Because of the price increases there was a real reduction in private consumption during 1982. The complaints about supply shortages were numerous and were not limited to regional, temporary gaps and bottlenecks. The as a rule carefully balanced equilibrium between commodity supply and money incomes started to vacillate. To be sure, there are no adequate data on investments, but in real terms they are likely to have decreased by 6 percent in 1982. The focus was on the accelerated completion of plans already begun earlier. As a result, a 5 percent greater investment volume could be demonstrated. The number of newly-begun projects was further decreased in 1982 and the volume of unfinished investments was reduced. In the coming years, however, similarly favorable conditions will not repeat themselves.

The plan for 1983 sets somewhat higher goals for growth than were realized in 1982. The produced national income is to increase by 4.2 percent and industrial production--by 3.8 percent. Altogether the specific consumption of raw materials and energy carriers of importance to the national economy is to be further decreased and the economic growth is to be attained with the same, and in part smaller, funds of energy carriers, raw materials and material.

In the constellation of the growth rates between domestic consumption and foreign trade, there are similar relations as in 1982: The increase in foreign trade turnover (+13 percent) is by far higher than the growth of the produced national income. Domestic consumption is poorly endowed. This applies, first of all, to the investments, whose volume is given as 47 billion marks--which, compared to 1982, is equivalent to a reduction of 10 percent. Points of emphasis are the spheres of energy, raw materials and microelectronics, as a result of which other spheres most likely came into difficulties. The target for the increase in net money receipts and the retail trade remains under the increase in production.

In industry the retraction of the planned increase for 1983 compared to the original five-year-plan (5.1 percent) affects almost all industrial spheres, though to varying degrees. Not touched are the spheres of coal and energy, as well as the gas and ceramics industry. Above-average cuts in the production targets of the chemical industry, the mining of ores, metallurgy and potash. Smaller rates than in the five-year plan are also found in machine building, in the electrotechnical industry and in instrument building.

Reduced Interest Burden

A precise statement concerning the balance in foreign trade is impossible because of the fragmentary statistical basis. It is certain, however, that the GDR all together achieved an export surplus in 1982. The greatest success after the years of deficits is the positive balance in the trade with the OECD countries (without the intra-German trade). In the intra-German trade as well the result--as already in 1980 and 1981--was positive for the GDR. In the commodity exchange with the USSR, on the other hand, a negative balance is likely to have developed again. The reduction in oil deliveries was more than offset through price increases.

The positive result in the trade with the OECD countries is confirmed by the development of the indebtedness to Western banks. The most recent data of the Bank for International Settlements (BIZ/BIS) show that the GDR between the end

of 1981 and September 1982 reduced its gross indebtedness by approximately 1.6 billion dollars, in the course of which partly its own assets were used. The net indebtedness all together diminished by 0.7 billion dollars.

The reduced interest burden in the year 1983, which is related to the internationally declining interest level, is viewed as a positive factor for the liquidity position of the GDR. For this reason the interest burden in 1983 is likely to be only 0.6 (compared to 1) billion dollars. Simultaneously there will be a considerable inflow of receipts in German marks (outside the framework of the Berlin Agreement) from the FRG. The payments from the FRG budget, from other public and other agencies in 1981 came to 1.2 billion German marks. In 1982 they attained approximately the same magnitude and, according to the estimates of the FRG budget during the current year, will amount to 850 million dollars. Beyond this, it is estimated that the GDR annually receives another billion German marks from the minimum exchange, Intershop and Genex business. All together the GDR in 1982 had at its disposal more than 2 billion German marks, while during this year it will most likely have 0.2 to 0.3 billion dollars less. But while last year the GDR with these receipts was just able to pay for its interest payments, the 1983 receipts in German marks will be somewhat higher than the interest payments.

The Renaissance of Lignite

As indicated by another report of the [West Berlin] German Institute for Economic Research, the increase in the price of oil induced the GDR to change its energy policy: Oil, but also bituminous coal, is being replaced with domestic lignite. In the short run this leads to an easing of the balance of trade, in the long run, however, it has negative effects ecologically, especially in the areas of industrial concentration. The recourse to domestic lignite, therefore, requires not only sizable expenditures immediately for the development of additional open-pit mining sites, but in the future also larger investments in environmental protection.

The GDR is planning to increase the production of lignite from 258 million tons in 1980 to 295 million tons by 1985 and 300 million tons by 1990. Heating oil, but also bituminous coal and bituminous coal coke, wherever possible are to be substituted by lignite or lignite products. This applies to household and commerce, for the 300 power and heating plants of the GDR and for the 21,000 industrial furnaces, especially for the production of process heat in the chemical industry, metallurgy and lignite upgrading. The expansion of power station capacity is overwhelmingly based on lignite; the share of nuclear power in the production of electricity will not increase substantially by 1985 (1981: 12 percent). At the latest in 1992 the GDR will put into operation a large coal liquification installation based on lignite; this installation is supposed to process approximately 10 million tons of raw lignite annually into fuels and other liquid products.

8970

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FURTHER DECENTRALIZATION IN FOOD INDUSTRY NOTED

Budapest MAGYARORSZAG in Hungarian 27 Feb 83 p 24

[Article by Peter Bonyhadi: "Under a New Flag: Farewell to the Trust, No Pat on the Back"]

[Text] Dreher beer, Gottschlieg rum, Stuhmer chocolate, Steiner cookies! The old food trademarks, these food and drink specialties, each represented factories in the food industry that were assimilated after the war into trusts and national enterprises organized according to the branches of the food industry. We are not going to get into analyses of economic history and industrial politics, but we will simply state that rapid growth of large-scale technology in socialist agriculture and ever more selective domestic and foreign markets have tightened more and more the restrictive trust framework of the food industry. This is not accidental, because up till now the member enterprises in the trusts have been able to work independent of local conditions and possibilities, just following orders from Budapest.

In the past few years, with the discontinuance of central directive trusts, the poultry, wine, sugar, tobacco, confection, canning, and beer industrial enterprises have received complete independence.

However, the assistant minister responsible for food industry matters in the MEM [Ministry of Agriculture and Food Industry], Dr Imre Kovacs, pointed out in one statement that the reorganizations did not mean that the flags of the trusts were being taken down everywhere.

In certain branches, say those of strategic importance, for example the grain, meat, and dairy industries, the trust organization has remained, and in others, such as the vegetable oil industry, the large enterprise remains. But even for these branches, only the nameplate seems unchanged, because internal organizational modernizations have been made that since 1 January 1983 have given greater independence to enterprises and individual factories in the formation of partnerships, in marketing, and in the system of interests.

For trust organization and enterprise independence are not mutually exclusive. It is possible, even necessary, for a trust enterprise of a size of several hundred million forints, or even billion forints, to have its own business policy, it must feel the successes or failures of its own work, it must manage the available financial resources according to its own viewpoint, etc.

For this reason the MEM directed the trusts and national enterprises earlier to modernize their own internal accounting systems.

In the interests of concentrated and continuing developments, however, there is further need for centralization of the profits of the trust enterprises. It is true that the decisions about this money are afterwards made by the supervising council of enterprise directors. This, of course, does not yet exhaust the further possibilities of giving independence to the enterprises. Further organizational rationalization is needed so that as large a fraction as possible of enterprise proceeds will stay where they were created, that is, so that as small as possible a fraction of the income of the member enterprises goes to the common funds of the trust.

So the centers of the large-enterprise trusts have given up some of the "stars on their collars," and their managing and directing role is limited to those tasks, naturally different in each branch, which it would be irrational to assign separately to each individual member enterprise.

The results of loosening the earlier supervisory framework and the declaration of enterprise independence are not visible from one day to the next, but enterprises in the sugar, wine, and tobacco industries are in their third year of operating independently, the confection industry two and a half years, and the poultry, canning, and beer industries since the beginning of 1982. And this already justifies collecting a few experiences together.

The enterprises being freed from the trust framework started of course with varying industrial, technical, and personal conditions. Economic circumstances built up over years and decades cannot be changed with even the most thorough preliminary work. The profitability of the newly independent enterprises varied in many cases like the track of a roller-coaster. Between the most and least successful enterprises of the tobacco industry, for example, the ratio was double; in the sugar industry the difference between the profitability indicators was four times.

But the reorganization took place gradually. Speaking figuratively, directors of the former member enterprises didn't know from one day to the next when to stop reporting to the chief director.

No enterprise was affected seriously in its profitability by the reorganization, none of them became unprofitable. On the contrary! Their relationships with agricultural producers, background industry, and commerce became more direct. They tried more strongly than before to modernize their product structure, and they were able to improve quality. In the Hafjusag sugar factory and the Kobanya beer factory, several small enterprises were organized, by means of which work that was formerly very difficult or impossible to get done could be accomplished through their own workers.

All this was done not for certificates or banners, but in order to stay economically alive, because they had to sell their products to survive.

The heightened and jubilant atmosphere is of course somewhat deflated by counter-examples, because after decades of conditioning it is not probable that every new-fangled enterprise will be suited for becoming independent. Stated diplomatically, many independent enterprises are still looking for their place. Their forward leaps are not as clear in initiative, independent management, risk-taking, in a word, modern management, as in the areas mentioned before.

In the course of reorganizing the food industry, there were of course many tasks that could be accomplished more rationally and, most important, more economically together. For this reason the new enterprises have formed associations, employing only a few people, which perform various services entrusted to them by the enterprises. There are some branches where the service units are concentrating on transportation or acquisition of raw materials. In others, export-import work is given to them.

The food-industry enterprises are of course watchful that these joint enterprises or associations do not raise their heads and perhaps smuggle back some of the methods of the trusts. For this reason their work, numbers and financial interests are determined by a supervising council composed of directors of the independent enterprises.

The behavior of the food-industry enterprises that have become independent or received greater independence has changed radically. The pat-on-the-back style in relationships with agricultural operations has been replaced by a tone of courteous business.

The question of "how well are we doing" with the agriculture that produces the raw materials is crucial to the food industry. For flexible adjustment to the market, profitable structural change and in general successful industrial activity are possible only if there is raw material of sufficient quantity and quality.

And this is why it is not enough to send New Year's greetings and calendars to the presidents of the collective farms. In addition to yearly and multi-year agreements with the farms the food industry enterprises are making more joint agreements based on common interests. The former relationships of "I buy, I sell" have been replaced by the mentality of "we weep together, we laugh together," mutual interest in joint development and results. The Petohaz sugar factory, for example, gives back 60 percent of the increased profit from higher-quality sugar beets, that is beets with higher sugar content, to the producers. The enterprise has organized annual soil analyses just in the interest of producing more high-quality sugar beets. On this basis, the amount of fertilizer needed could be determined and applied almost to the exact gram. A joint development fund has also been started in order to extend investment support to sugar-beet producers who lack the means for proper mechanization.

9611

CSO: 2500/157

EVOLUTION, IMPACT OF MISGUIDED CAPITAL SPENDING POLICIES ANALYZED

Warsaw FINANSE in Polish No 1, Jan 83 pp 31-42

[Article by Witold Walkowiak: "Investment Policies During The Years 1976-1981"]

[Text] One of the main causes for the slump in development which the Polish economy is currently undergoing is the number of mistakes resulting from the investment policy pursued during the 1970's. It is quite intelligible that problems associated with investment receive great attention in the numerous analyses of the sources for the current crisis. The main subject under consideration is the rate and structure disproportion of investment outlays already formulated in the first half of the decade. This disproportion significantly influenced the failure of the so-called strategy of accelerated development. The importance and crisis character of this disproportion are indisputable, but it certainly does not exhaust "the investment problem" when analyzing the complete list of reasons explaining the actual state of the economy. This determination relates to the phenomenon which occurred during the phase of the crisis' "birth", i.e., already in the first half of the 1970's. In the meantime, the course of the investment processes in the following years, during the crisis' "coming-of-age", was also one of the factors impacting on the slump in the economic growth process (and also shaping the character and degree of the slump). Viewed from this perspective, an analysis of these processes seems to be well founded.

The subject of the present article is an analysis of the investment processes during the years 1976-1981. A presentation of the main tendencies, to which investment processes were subordinated and against a backdrop of slumping economic development, can contribute to a complete familiarization of the investment determining factors for the crisis. The scope of this article is only partial. The individual parts of the analysis are dedicated to major problems, the characterization of the crisis in the area of investment processes, and the evaluation of investment policy itself.

Investments and National Income

In viewing the course of economic growth, we can divide the 1970's into, roughly speaking, 2 periods: 1971-1976, a period of high developmental growth rate; 1976-1980, a period when the economic developmental tendencies exhausted themselves. These tendencies led to a total slump in the economy; i.e. a decline in production and national income, and complete economic disequilibrium.

A reversal of these tendencies in the economic developmental growth rate is illustrated in Table 1:

Table 1. Average Annual Growth Rate of National Income, Consumption and Investments

(constant prices)		
<u>SPECIFICATION</u>	<u>1971-1975</u>	<u>1976-1980</u>
NATIONAL INCOME		
-Generated	9.9	1.2
-Distributed	11.6	-0.2
CONSUMPTION	8.7	4.5
NET INVESTMENT OUTLAYS	19.6	-9.2

Source: Statistical Yearbook 1981, p 85, vol 3 (121), p 90, vol 14 (132)

During the years 1971-1975, the economy underwent a period of so-called rapid growth: the growth rate of investment outlays also overtook considerably the high growth rate of the national income. It is worth taking a look at a rather characteristic feature of this period; i.e., maintaining the high growth rate of consumption. Overcoming the inconsistencies between the policy of accelerated development, propelled by way of increases in investment, and the public's desire for consumption growth was achieved thanks to the utilization of foreign credits on a considerable scale (distributed income increased faster than generated). Economic development came to a complete halt in the second half of the decade. In comparison to the previous five-year period, the average annual growth rate of investment outlays in the years 1976-1980 was significantly lower than the average annual growth rate of the national income (as indicators, referring to the distributed national income and investments, were applied, it would be necessary to speak rather of a decline rate). The mentioned interdependence between the national income and investments, evident in a dynamic formulation, are illustrated also by the data relating to the distribution structure of the national income, specifically--investment rates (see Table 2).

Table 2. Distribution Structure of the National Income
(constant prices, 1 Jan 1979)

<u>Specification</u>	<u>1970</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
National Income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Consumption	72.9	64.3	65.7	68.6	69.4	73.9	79.7	89.1
Capital Accumulation (including) Net Investment Outlays	27.1	35.7	34.3	31.4	30.6	26.2	10.3	10.9
	20.5	29.0	26.9	26.8	25.9	23.2	17.3	10.3

Source: Small Statistical Yearbook 1978, p 44, vol 6 (48), Statistical Yearbook 1980, p 72, vol 15 (115) and Statistical Yearbook 1982, p 74, vol 14 (120)

The quoted data, referring to the growth rate of the national income and investments, indicate a distinct reversal of the ten-year period's developmental tendencies. They also do not allow for one to comprehend the scale and the course (chronologically arranged) of the slump during the growth and change process in investments. For this we will use the annual rate indicators of the quantity changes of the two (see Table 3).

Table 3. Growth Rate of the National Income and Investment Outlays

<u>Specification</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
National Income:											
-generated	108.1	110.6	110.8	110.4	109.0	106.8	105.0	103.0	97.7	94.0	87.9
-distributed	109.8	112.5	114.3	112.0	109.5	106.5	102.2	100.5	96.3	94.0	87.7
Net Investment											
Outlays	110.2	126.7	127.7	122.3	112.1	99.1	102.7	95.0	84.6	74.6	54.3

Source: Statistical Yearbook 1981, p 84, vol 1 (119), p 90, vol 14 (132)
Statistical Yearbook 1982, p 69, vol 1 (107), p 74, vol 14 (120)

The slumping economic growth was of an increasing nature: initially, 1975-1978, there was a decline in the growth rate of the national income; afterwards, 1979-1981, there was an absolute, year to year decrease greater in size. Cutting the size of investment outlays, characteristic for the entire period analyzed (with the exception of 1977), was also an increasing phenomenon--as much as in 1976 their decline was insignificant since it hardly amounted to 1 percent--when they were reduced by almost 46 percent in 1981 in comparison to the previous year.

As a result of the reduction in investment outlays, in dimensions exceeding an absolute decline in the national income, there were changes in the proportional distribution of the national income (see Table 2). The burdening of the national income with investments during the 1971-1981 period was quite differentiated. Changes in this area confirmed the mentioned interdependence inasmuch as when there is an increase in the share of investments when the national income is being distributed during a period of rapid growth, the opposite, a decline, occurs when the economy had slowed down. This phenomenon and, especially, the growth of investments not proportional to the growth of the economy's productive capacity were the basic reason for the irregularity in economic growth and economic instability.

The declining share of investments as a percentage of national income was a feature present during the entire period under study; moreover, in 1979-1981, this decline was greater. This was associated with the economy's entry into a period of severe slump. A radical reversal of the proportional distribution of the national income allowed a minimalization of the consequences of its decline for the consumption level. During the year of the worst slump, 1981, total consumption remained on the 1980 level (per capita consumption was reduced by less than 1 percent). The real issue--maintaining the consumption level under conditions of decline in the national income for distribution--was associated directly with a reduction in economic investment opportunities.

A comparison of the indicators characterizing the economic development of other socialist countries (see Table 4) permits the statement that many of them were on the "path of growth" similar to the Polish economy. Of course, the analogy is incomplete. Above all, the economic development of none of these countries was subjugated to such great fluctuations as was the Polish economy. However,

Table 4. The Average Annual Growth Rate of National Income and Investments in European Socialist Countries (constant prices)

<u>Specification</u>	<u>National Income</u>		<u>Investment Outlays</u>	
	1971-1975	1976-1980	1971-1975	1976-1980
Bulgaria	7.8	6.2	8.6	4.0
Czechoslovakia	5.5	3.7	8.6	2.8
Yugoslavia	5.7	5.7	5.8	7.0
GDR	5.4	4.1	4.7	3.7
Poland	9.8	1.2	17.5	-3.0
Rumania	11.4	7.0	11.5	8.5
Hungary	6.5	3.4	7.0	2.4
USSR	5.7	4.2	7.0	3.4

Source: International Statistical Yearbook 1981, p 68, vol 2 (71), p 80, vol 2 (80).

the direction of the changes in the growth rate of economic development in the second half of the 1979's, in comparison to the first half, was the same: a decline in the growth rate of the national income and--to the degree of a more general rule--investments. An exception to this is the Yugoslav economy, the growth of which was achieved at a high and regular rate during the entire decade, while the investment growth rate during 1976-1980 increased in relations to the previous ten-year period when--it is worth noting--the growth of investment outlays and national income occurred at the same rate. The reasons for a lessening of the growth rate of individual countries can vary. If we take a close look at how these economies function, we will begin to notice similarities to the Polish economy, particularly if economic development was regulated: excessive investments, causing instability in economic equilibrium, and a lessening of the development rate--this hypothesis is confirmed by the fact that many countries are struggling in the second half of the decade with the problem of an over extended investment front.

The Growth Rate of Investment Outlays

The slumping economic growth process was accompanied by a sharp decline in the growth rate of gross investment outlays (we were talking before about changes in the size of net investment outlays). During the period 1971-1975, gross investment outlays grew at an annual average rate of 17.5 percent; on the other hand, during the period 1976-1980, this rate was reduced to -3.0 percent. A comparison of both indicators still does not completely show the scale of decline in outlays because, as in the case of national income, the decline is of an increasing nature. Even up to and including 1978, gross investment outlays

were subject to increase, although the annual rates of growth (within limits of 1 to 3 percent) were incomparably lower in relation to the 1971-1975 period. Only in 1979 (the first year of decline in the national income) was the size of the outlays reduced by 7.9 percent in relation to the previous year; in 1980 it was reduced 12.3 percent and in 1981, by as much as 22.7 percent. The result: gross investment outlays rose in 1981 by almost one-third less than in 1975.

In the period analyzed, the growth rate of investment outlays in the production sphere was lower in relation to the growth rate in the non-production sphere. Outlays for production investments in 1981 were lower by 40.6 percent in comparison to 1975. On the other hand, investment outlays in the non-production sphere diminished by 8.7 percent during the same period. This signified a reversal of the situation which took place in the first half of the 1970's when growth in outlays for production investments was preferred.

The growth rate of investment outlays in the individual sectors of the economy was also varied. When investment outlays in the socialized sector in 1981 were lower compared to 1975 by 37.8 percent, the outlays in the non-socialized sector, at the same time, maintained a restrained growth rate and were 10 percent better off in 1980 as opposed to 1975. For comparison, in the five-year period 1971-1975 investment outlays in the socialized economy grew considerably more quickly than the non-socialized economy; outlays in the socialized economy were as much as 137.1 percent higher in 1975 than in 1970, while outlays in the non-socialized economy were only around 44 percent. Consequently, both the "investment leap" of 1971-1975 as well as the investment reductions in the later period referred, above all, to the economy in the socialized sector.

Data referring to the growth rate of investment outlays, according to the sectors of the national economy, show that during the period analyzed, a distinct weakening in the growth rate of outlays occurred in comparison to the first half of the 1970's in all sectors of the national economy (see Table 5). Simultaneously, however, this decline became pronounced in the individual sectors to a varied degree. The greatest decline, greater than in the entire economy, was noted in the following sectors: industry, construction, transportation and communications, commerce, science and technological development, culture and art, as well as physical culture, tourism and recreation. In a relatively more favorable situation were: agriculture, forestry, communal economy, housing, intangible communal services, education, health care and social welfare. The considerable reduction in the influx of investment funds to construction development is noteworthy. This was tied to the reduction in investment outlays for the entire economy.

As we have already indicated, industry belongs to the sectors where the reductions in investment outlays were the most serious, suffice it to say that outlays for socialized industrial investments were almost one half less in 1981 than in 1975. Limiting investment outlays occurred in all subsectors of socialized industry; still, even in this case, only to a varying degree. Above all, it has to be emphasized that they referred mostly to manufacturing industries (in the 1976-1981 period, the decline was as much as 54.8 percent), in comparison to the mining industry where the decline was about 7.1 percent during the same period. Moreover, even in 1980, outlays for the mining

Table 5. Growth Rate of Investment Outlays by Economic Sector (constant prices)

<u>Specification</u>	<u>1971-1975</u>	<u>1976-1980</u>	<u>1981</u>
	Average Yearly Growth Rate 1975 = 100 (in percentages)		
National Economy in general	17.5	-3.0	66.4
Industry	21.0	-7.2	51.1
Construction	25.9	-5.6	42.6
Agriculture	13.8	-0.7	83.9
Forestry	11.4	+7.9	130.6
Transportation and Communications	17.3	-4.2	50.2
Commerce	17.1	-6.9	65.6
Municipal Public Services	20.0	+4.2	112.9
Housing and Intangible Municipal Services	11.3	4.6	100.3
Science and Technological Development	21.1	-11.2	46.9
Education	6.3	-4.2	74.3
Art and Culture	9.0	-1.7	53.6
Health Care and Social Welfare	18.9	4.3	112.9
Physical Education, Tourism and Recreation	31.3	-4.4	60.5
Other	6.4	2.5	88.2

Source: Calculated on the Basis of: Statistical Yearbook 1982, p 143, vol 3 (185)

industry were around 32 percent higher than in 1975 and the reduction occurred, consequently, only in the last year of the analyzed period. A relatively small decline in investment outlays for the mining industry was mainly tied to a preference for the coal industry. The investment outlays in these subsectors in 1981 were 46.0 percent greater than in 1975. The greatest decline in the size of investment outlays during the 1976-1981 period occurred in the following subsectors: the metallurgical industry (by 76.6 percent), mineral (by 75.0 percent), wood and paper (by 60.5 percent) and light industry (by 68.9 percent). The following industries were viewed in a favorable situation, besides the mentioned fuel and energy industry: machine, chemical and food, in which the rate of reduction in investment outlays was lower than in the entire socialized industry.

The discrepancy in the size of the decline in investment outlays in the original makeup of outlays has to be evaluated as insignificant. Outlays for building and assembly projects made up only 62.7 percent of the 1975 level in 1981. On the other hand, outlays for machines and appliances were at 69.3 percent. A greater discrepancy in the decline in outlays for building and assembly projects and for machines and appliances were noted in socialized industry where, in relation to this same period, these indicators amounted to-- respectively: 40.3 percent and 57.7 percent.

The Structure of Investment Outlays

The differentiation of investment outlay rates between particular spheres of the national economy signified a transformation of the investment structure. Changes in the directions of the distribution of investment funds, which will be described later, are thus, to some extent, a reflection of the tendencies discussed in the growth rate of investment outlays.

In the 1976-1980 five-year period, 75.5 percent of all investment outlays in the national economy was directed (on an annual average) to production investments, as compared to 77.8 percent in the 1971-1975 five-year period. The tendency of decline in the share of outlays for production investments is characteristic of the entire period analyzed. In 1976, this share came to 78.5 percent, only to be reduced afterwards to 72.0 percent in 1981. The sector structure of outlays for the growth of the share of outlays in the non-socialized economy also changed. Their share came to 8.5 percent in 1976, then 14.6 percent in 1981. Besides this, during the 1976-1980 five-year period, the share of investment outlays for the non-socialized economy (producing 10.0 percent) was reduced by 0.5 percent in relation to the previous five-year period. (The allocation of investment funds for use by the non-socialized economy was afterwards too minor for a reversal, or even for maintaining the proportion of the funds on the scale of five-year periods).

Changes in the sectoral structure of investment outlays, which resulted in the 1976-1981 period (see Table 6) consisted of 1) in the production sphere--a decline in the share of industry, construction (a decline associated with radical reductions in investment activity in the last years of the decade), transportation and communications, as well as commerce with a growth in the share of agriculture, forestry and municipal economy in investment outlays; 2) in the non-production sphere--a growth in the share of, above all, the housing market, intangible services, health service and social welfare from all investment outlays spent in the national economy. Attention should also be focused on the fact that attempts at restructuring the makeup of investment outlays were performed under conditions of reducing the total investment fund, hence the changes in the amount distributed by this fund show not so much "the preferences for development" as much as "the preferences for protection" of investment activity in particular sectors of the national economy (let us recall that the amount of investment funds flowing into most sectors shrank in absolute terms. The change in the proportion of the allocation of funds for its separate subsectors accompanied the decline in the share of industry in investment outlays spent in the entire economy (see Table 7).

Above all, the growth of outlays for investments in the mining industry produced very clear results. A strongly preferred industrial subsector was the fuel and energy industry whose investments tied down in 1981 more than a third of all socialized industrial investment outlays (in previous periods, a slump produced little above one-fifth). Moreover, even if only to a lesser degree, the share of outlays for food industry investments increased. The shift of funds was achieved by reducing them in other subsectors, especially in metallurgy. It is also noteworthy that the mentioned reorientation of investment outlays within industry was achieved in the last 3 years of the

Table 6. Breakdown by Sector of Investment Outlays (constant prices from 1-1-77)

<u>Specification</u>	<u>1975</u>	<u>1978</u>	<u>1981</u>
National Economy in general	100.0	100.0	100.0
Industry	43.2	38.6	33.2
Construction	5.2	5.2	3.3
Agriculture	14.7	16.7	18.6
Forestry	0.3	0.5	0.5
Transportation and Communications	11.1	0.1	8.4
Commerce	2.4	2.0	2.3
Municipal Public Services	3.7	5.1	6.3
Housing Market and Intangible Municipal Services	13.3	17.0	20.1
Science and Technological Development	0.7	0.5	0.5
Education	1.6	1.4	1.8
Art and Culture	0.3	0.2	0.2
Health Care and Social Welfare	1.2	1.2	2.0
Physical Education	1.2	1.1	1.3
Miscellaneous	1.2	1.4	1.5

Source: Calculated on the Basis of: Statistical Yearbook 1982, p 143, vol 3 (185)

period analyzed; i.e., during the years of reducing the size of investment outlays.

Table 7. Subsector Structure of Investment Outlays for Socialized Industry (constant prices from 1-1-77)

<u>Specification</u>	<u>1975</u>	<u>1978</u>	<u>1981</u>
Socialized Industry in general	100.0	100.0	100.0
including: Mining	16.7	14.7	22.1
Manufacturing	83.3	85.3	77.9
Fuel and Energy	19.2	22.8	34.4
Metallurgy	16.8	16.8	7.7
Electronics	24.7	24.9	24.9
Chemical	9.6	10.7	9.9
Mineral	7.1	5.2	3.5
Wood and Paper	4.6	5.5	3.6
Light Industry	6.1	4.3	3.7
Food	10.1	8.5	11.0
Miscellaneous	1.8	1.3	1.3

Source: Statistical Yearbook 1981, pp 253-254, vol 31 (297); Statistical Yearbook 1982, pp 190-191, vol 28 (267).

The technical structure of investment outlays did not undergo and significant change. The share of investments for building and assembly projects, even though it was reduced from 52.9 percent in 1976 to 50.3 percent in 1981, remained high. Very evident changes in this field occurred in socialized industry where the share of investments for machines and appliances grew from 52.9 percent in 1976 to 57.7 percent in 1981.

A change in the so-called economic structure of outlays (see Table 8) accompanied the subsector shift of investment outlays in socialized industry. This change was based on the growth of its share of outlays for new investments and on the corresponding decline in the share of outlays for the reconstruction and modernization of regular industry's existing facilities. During the years of the "investment lead", in 1971-1975, an opposite tendency occurred consisting of the growth of the share of outlays for new industrial investments

Table 8. Economic Structure of Investment Outlays for Socialized Industry (current prices)

<u>Specification</u>	<u>1975</u>	<u>1978</u>	<u>1981</u>
New Investments	56.4	41.4	33.9
Reconstruction and Modernization	43.6	58.6	66.1

Source: Statistical Yearbook 1981, p 185, vol 5 (207); Statistical Yearbook 1982, p 191, vol 29 (268).

The Investment Front

In order to explain the essence of the crisis in the sphere of investment processes and its connection to the general slumping of economic growth (without which it is impossible either to evaluate the implemented investment policy or to recognize properly the actual determining factors of extracting the economy from its current state in the area of investment activity), it is necessary to describe the problems of the investment front and the concentration of investment outlays.

The decade of the 1970's was a period of progress in investment activity on a scale unprecedented in the postwar years of Polish economic development. An illustration of the vitality of investment activity, especially in the years 1971-1975, (here the appropriate definition for the period would be "the investment explosion"), was the expansion of the investment front. In 1975, the value of realized investments in the socialized economy exceeded 1.3 trillion zloty (the gross national income, generated in the socialized economy, produced in current prices something less than 1.5 trillion zloty). In 1981, besides the reduction in investment outlays, this amount increased to nearly 2.3 trillion zloty. The explanation for the phenomenon of the expanding investment outlays requires an analysis of the structure of the investment front and the directions of investment outlay utilization. Before we can determine the reasons, we will present the results of this paradox.

An immediate result was an increasing deconcentration of investment outlays. The factor of the concentration of outlays (the ratio between the size of investment outlays and the cost-estimate value of realized investments, expressed in percentages) makes up the following:

In the Socialized Economy

<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
23.2	22.1	21.7	18.4	15.4	11.8

In Socialized Industry

<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
21.3	19.9	19.1	14.8	12.3	8.9

This negative phenomenon (associated with a worsening efficient realization of investments and with a prolongation of the cycles of realizing investments, and the like) appeared with a particular strength in the last years of the analyzed period as a result of radical slashes in investment outlays.

Paralleling an increasing deconcentration of the investment effort was the growth of the size of freezing investment outlays. The size of frozen investment outlays was 24.8 percent in 1975 and 37.6 percent of the national income in 1981. The growth of freezing investment outlays resulted from changes in the coefficient of the freezing (being a percentage relation of the size of the freezing to the size of investment outlays). In the following years of the period analyzed, this produced:

In the Socialized Economy

<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
113.3	124.6	139.2	164.7	220.8	318.0

In Socialized Industry

<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
129.3	143.9	141.2	206.3	284.3	447.3

The problem of machinery and unutilized appliances is associated with the freezing of outlays. For the 1978-1980 period, their value (in current prices) increased by almost two-thirds. In 1980, their worth became 46.3 percent of the total size of outlays for machines and appliances, 64.7 percent of the outlays for imported machines and appliances and 67.8 percent of the outlays for machines and appliances purchased in the capitalist countries.

Complementing the picture of an excessively extended investment front is the growing commitment of future investment outlays. The coefficient of the commitment (the ratio between the size of the commitment and the size of the investment outlays) behaved as follows in the period investigated:

In the Socialized Economy

<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
2.5	2.4	2.4	2.8	3.6	4.5

In Socialized Industry

<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
2.7	2.7	2.8	3.8	4.6	6.2

The above data explain the growing disproportions between the demand for investment funds, arising solely from the tasks already undertaken, and the investment opportunities offered by the economy. We can present the scale of this disproportion as follows: by wanting to complete the investment ventures undertaken in 1981, it was necessary to lay out funds 4.5 times greater than the original outlay actually proposed (in industry, 6.2 times greater). It is valuable to add that these outlays absorbed 54.8 percent of the national income (this is a sure exaggeration because the total eradication of the commitment, like the freezing of investment outlays, is not realistic anywhere; still, the numbers presented express the degree of instability in the proportions in this area). We should also say that, above all, the unfinished industrial investments (mainly in the fuel and energy industry and metallurgy), to which almost 52 percent of the total sum for commitment of outlays were allocated in 1980, exerted an influence on the high level of commitment of investment outlays in the entire economy.

Unfavorable phenomena had appeared in the middle of the 1970's in the form of the deconcentration of the investment effort, escalating freezing and the commitment of investment outlays; but these phenomena worsened in the following years, becoming the main dilemma of the investment policy in its attempts to extract the economy from crisis. The worsening situation in this area (an intensification of the instability in investments) was the result of 2 outcomes: firstly, a slump in the growth of the economy (the decline in the national income and reduced economic opportunities), secondly, the irregular structure of investment outlays, which "wound up" the expanding investment front and caused the decline in the concentration of investment outlays under conditions of shrinking investment opportunities. This is confirmed by the ratio (with its changes) between the estimated value of initiated investments and the value of investments allocated for use. This amounted to (in percentages):

<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
131.9	107.5	124.9	108.6	86.2	59.8

And so, by 1979, inclusively, the value of initiated investments exceeded the value of investments allocated for use: this led to a further expansion of the investment front and a deconcentration of funds. Proof for the lack of a proper, i.e., a suitable, timely and consistent transformation of the structure of investment outlays--in the direction of concentrating funds on ventures already initiated and producing quick results--is the fact that in 1980, 19.1 percent only from the total freezing of investment outlays made up the frozen assets for 3 and more years, the remaining portion had to do with outlays raised in 1978 and later.

In evaluating the course of investment processes in the years, 1976-1981, (and the resulting efficiency of the economic policy in the field), it is necessary to regard the fact that from viewing the dependencies, inherent in the process of economic growth, the decade of the 1970's becomes complete; therein, it is necessary to look for an explanation for the many aforementioned and characteristic phenomena. One can formulate the thesis that the disproportionality of the investment processes, so clear in the second half of the 1970's, was already determined, to a great extent, by those investments made earlier. This determination had a dual character:

Firstly, the violation of the stability in the sphere of investment processes occurred already in the first half of the 1970's. It is enough to mention the fact that already in 1975, the freezing of investment outlays became almost a quarter while the national income's commitment for the future was one-half--these disproportions were already so great that overcoming them totally and quickly was no longer possible.

Secondly, the economy did not wait for the "investment harvests". Moreover, investments, instead of becoming the agent for economic growth, were, de facto, one of the reasons for the severe slump in economic development which resulted from the disproportion between the scale (an "over-investment" of the economy) and the structure (the appearance of so-called bottlenecks in the economy) of investment outlays. A reduction in the growth rate and the consequential decline in the absolute size of the national income created the need to lessen investment outlays. This move signified that maintaining the equilibrium between continued active development and increasing investment outlays was no longer possible.

Both the question and a doubt arise whether the nature and, above all, the scale of the phenomena creating the crisis syndrome in the area of investment, in the period analyzed, were already predetermined by policy mistakes in the investments implemented in the first half of the decade?

Certainly not. These phenomena, besides being a consequence and also a continuation of the processes initiated in previous years, were the result of current investment policy. To be sure, indications, that people recognized and understood the impending threats, were evident. As if the creation of new provisions of economic policy--like the so-called economic maneuver (others promised a reduction and reorientation of investment outlays, or any adopted resolutions--in the middle of the 1970's could result in the reversal of the negative tendencies. Attempts at correcting the situation in the area of the investment front, including an increase in the concentration of investment outlays, led initially to a reduction of new investment tasks, to a cut-off of

realized investments. These restrictions were effective only in relation to small ventures, mainly of a non-production character. Hence, they were not very significant in restoring investment equilibrium. The reduced funds were often directed in this fashion to newly undertaken investment ventures. It is worth remembering that these efforts were executed under conditions which limited the entire investment fund. Additionally, this further neutralized their effect--there was an even greater deconcentration of the investment effort. One can venture the statement that a reduction in investments and changes in their utilization were "coerced" by economic realities and not by some officially declared turnaround in economic policy. The continuation of an expansive investment policy under conditions of decline in the national income and excessive indebtedness of the country would simply not have been possible. A revision of the investment front, achieved in 1981, resulted in the suspension of 23 percent of in-progress investments for the entire national economy and almost 33 percent of in-progress investments in industry. These endeavors, undertaken not without result, still did not improve the concentration of investment outlays. At the same time, these efforts did not produce the conditions under which the outlays could most effectively be used. The mechanism, described as "a tightening noose", that is to say, a manageable connection between the severe disproportions in the sphere of investments and the decline in national income (and also the chance to reduce these disproportions) has determined further the conditions for our conducted economic policy, both in the investment area, as well as in extracting the economy out of the crisis.

12247

CSO: 2600/546

PROPER ROLE OF CENTRAL PLANNING AUTHORITIES DEBATED

Planning Commission Staffer Views

Warsaw POLITYKA in Polish No 9, 26 Feb 83 pp 1, 4

[Article by Wlodzimierz Cymbala, staff member of the Planning Commission and adviser to Janusz Obodowski, vice premier and chairman of the Planning Commission: "Less Slack"]

[Text] Wlodzimierz Cymbala, an economist, was a member of the Operational Anti-Crisis Staff and the KGRM Secretariat. He is currently with the Planning Commission.

The anti-crisis program cannot be restricted exclusively to purely economic measures. It must take into consideration and reconcile the economy's justifiable needs with the public's expectations.

First, with the expected application of fundamental socialist principles, and particularly the equitable and just treatment of all citizens, the guarantee of proper respect for each working individual and the establishment of the best opportunity for social, professional, and material advancement, and industrial, regional, and cooperative self-management--the guarantee of an appropriate role in public life.

Secondly, it is also necessary to gear socioeconomic policy toward the fulfillment of immediate and long-term development goals.

Thirdly, it is necessary to develop a model of the Polish economy, as well as a model of consumption patterns for the final years of the 20th century.

Fourthly, establish mechanisms which guarantee management and frugal consumption of material goods. Verification is necessary, of hitherto existing proportions between the production of new goods, and activity aimed at maintaining the efficiency of already existing goods, and the extension of the service life of material goods through the production of higher quality goods.

Minister, Voivoda, Foreman

In order for these simple truths to constitute not only a series of slogans, it is necessary to work out a cohesive socioeconomic policy and, perhaps most

importantly, coordinate the activities of everyone involved in implementing this policy: the minister, voivoda, company director, the KZ [Factory Committee] first secretary, and the foreman. In the past, the lack of this was very likely the greatest shortcoming of the political system. This problem caused otherwise good programs to be out of synch with the problems of the real world and facilitated arbitrariness and jurisdictional as well as regional arbitrariness.

Comments which I present do not constitute the entire anti-crisis program. This is a collection of suggestions with which it would be essential to improve the program and the policies designed to carry it out.

What should the basic premise of these policies be?

In the first place, it is necessary to mention the restoration of an adequate range of socioeconomic planning, including annual and long-range plans. This demand may at first glance, appear to be anti-reform. Therefore, I must emphasize strongly that no nation, and least of all a socialist one, can waive its rights when it comes to the guidance of its development. No one in any system has released the government from its responsibilities in the marketplace or its responsibilities concerning inflation, employment, etc., no matter how many "S"s were at its disposal.

The next matter concerns the establishment of priorities encompassing those sectors of the economy for which the government is entirely responsible and whose growth the government will, above all, seek to promote at a given point in time. In trying to resolve everything, we resolve nothing.

Finally, I have in mind a uniform national policy governing prices, salaries, social services, as well as taxes.

I continue to believe that a plan for reorienting the economy toward the extraction and processing of our own mineral resources must be part of a coherent economic growth strategy.

It is also necessary to promote the cultivation and high-grade processing of high protein fodder.

There exists an urgent need for a change in the structure of industrial production, the modernization of production, and a decrease in the costs incurred in manufacture, as well as the establishment of conditions which permit a flexible changeover by enterprises to suit consumer goods market and export market demands. In 1985, consumer goods and export production should total approximately 55 percent of the total industrial output (compared to 46 percent in 1982).

In order to achieve this by 1985, it is necessary to shift industrial output in a direction favoring the establishment of a domestic producer goods manufacturing infrastructure. This task must be in the form of a directive for ministers.

Must something else be added to a revised program? This is not the place to present everything. I will limit myself to a slogan-type citation of several principal elements, such as the working out by all manufacturers (especially those producing investment goods) of plans for activating the production of alternative and recycled goods; the modernization of production from the standpoint of materials-, energy-, and import-intensiveness, increasing the recycling of secondary raw materials and waste materials; the initiation of the production of equipment for unconventional power generation, for example: windmills, small hydro turbines, and bio-gas plants; a more rational exploitation of productive capital stock and the development of spare parts production; and finally the utilization of the research base for substitution of imports and allocation of small quantities and small-scale mass production of unique materials, reagents, etc. for export.

The achievement of self sufficiency in the realm of food production demands the equitable treatment of the development of all sectors of agriculture: private, cooperative, and state, as well as the guarantee of increased supplies of agricultural equipment, construction materials, and fertilizers for the agricultural sector, and above all the authorization for the procurement of agricultural products and their storage. The consistent improvement in the nation's agricultural structure is also essential. Can this then guarantee high-yield crop production from an acreage of 3 hectares?

The second task should be a stable and coherent policy, which assists in the development of production on private plots. This concerns, above all the credit and taxation policy, as well as the development of contracts. On the other hand, in the socialized sector [PGR--State Farms], organized chiefly along the lines of agricultural-industrial combines, there must be development of food production, as well as the development of high-yielding seeds, seedlings, and planting materials, and fodder production.

An element of the anti-crisis program must also include the principle of public control over production, distribution, as well as food prices, and its foundation is the gradual reduction of differences between the living standards and working conditions of rural and urban workers through the improvement in the standard of public services and the social services infrastructure in rural areas.

The program must also be directed toward an increase in economic cooperation with foreign nations, especially with CEMA nations. It is necessary to develop a comprehensive policy of foreign trade and economic cooperation. This represents an initial step. Future ones would depend on the development of consortiums for joint ventures in third country markets, as well as international organizations of firms of CEMA nations. The establishment of such organizations for the production of machinery and equipment for agriculture and food processing industry, color televisions, buses, trucks, and automobiles must be considered just as urgent. As we well remember, the economic integration of the European Common Market nations began with European Cooperation on Coal and Steel which took place in 1952.

We must also draw up rules governing our participation in the development of fuels and energy industries on Soviet territory as well as the participation of CEMA nations in similar undertakings in the Polish People's Republic.

The source of hard currency venture capital without incurring costly credits should come about through the founding of corporations in partnership with foreign capital. It is necessary to create the conditions for such a development, and priority should be given to export construction projects, as well as scientific achievements and technical services.

I further believe that the anti-crisis program should support in an unequivocal manner the development of all cooperatives, skilled trades, as well as private commerce and services.

An obvious objective of a revised program needs be the directing of the national economy toward increased housing construction.

Science and practical applications need to be drawn closer together, and there should also be closer contact of schools and institutes with economic needs. All research activity, with the exception of essential, basic research, must bring tangible advantages to the nation and its enterprises. Consistent decentralization of the technological progress fund (such a decision has already been taken by the Sejm) is necessary, especially central level financing exclusively of research problems of fundamental significance to the entire national economy; while all remaining research and development activity is to be accomplished exclusively upon the basis of guideline instructions.

Individual Responsibility

The anti-crisis program will fail to be accomplished if there is no immediate restoration of control over the national economy as a whole, or in its individual sectors and branches. This necessitates a precise definition of the outlining of tasks, and the competence and responsibility of state organs. It must be accompanied by a transformation in economic planning and financing, as well as control over research and technological advancements, and investments.

It demands the merger of hitherto existing committees, commissions, and councils working under the Council of Ministers and in interministerial structures, into one Council for Socioeconomic Development (a suggested designation) to work together with the Council of Ministers. I also consider necessary, the establishment of a State Economic Committee (a suggested designation) during the crisis solution period, under the leadership of the premier or his deputy, and which will be equipped with the necessary powers and responsibilities. In terms of the well-known adage by de Gaulle concerning the priorities of the modern state, i.e., "the economy, law and order," the State Economic Committee must answer fully to the Council of Ministers for the first element of this formula.

I see as a consequence of the proposed strengthening of the center the decentralization of authority and the delineation of the jurisdictions of those officials in charge of state and economic administrative departments. Authority should be accompanied by personal responsibility for the entrusted task. Let the minister be the minister, and the voivoda the voivoda, and therefore be fully responsible for his activity and the consequences.

Continuing on, I propose the organization of factory-level unions inside individual branches of industry, the guarantee of proper intrabranch cooperation, the modernization of production, and its adaptation to market and export needs, as well as the harmonious development of the unionized enterprises. These unions must function as a management consortium, boards of concerns, multi-factory combines, and also the former industrial associations, but equipped with the essential powers and responsibilities.

Following the liquidation of the industrial federations (granted, there was much distortion and degeneration in their work), the management of the Polish economy today reminds one of an army whose headquarters, under the guise of modernization and simplification of the command structure, has eliminated divisions, and has itself undertaken the command of the regiments. The establishment of industry-wide unions must not and should not delimit self-management nor the economic independence of the enterprises. Instead, in the near future, the fundamental interests in the nation's development will necessitate compliance with the law that the enterprise is administered by a sole director appointed by the branch administration. Insofar as self-management is concerned, I propose the establishment of Branch Workers' Self-Management Councils, and a National Workers' Self-Management Council. Their objective must be to reconcile branch activity tasks with the interests of the general public and also link together enterprise self-management activity.

In order to formulate the above-mentioned economic proposal it is necessary to adapt accordingly the authority and responsibilities of the state regional administrative organs. Fundamental activities in this domain would depend upon the restoration of administrative districts as the basic unit of state regional administration, and territorial self-government, and equipped with the appropriate administrative, economic, and fiscal powers. The District People's Council or the administrator of a district should be elected by direct and secret ballot. On the other hand, a voivodship-level self-government can be established through the delegation of District People's Council representatives, while the voivoda is appointed by the premier. This springs from centuries old Polish traditions, and also as a result of aspirations for the continuation of the democratization process of life.

It is Possible Provided That...

The proposals presented here generate the question of how the instruments for the accomplishment of state policy will reconcile themselves with the economic reform based on the "three Ss"? Is this possible provided that the socioeconomic plan is transformed into a basic instrument guiding the nation's development. The point here is to make the social objectives spelled out in

the plan and the hierarchy of priorities and resource allocations necessary for their fulfillment mandatory while at the same time making the fulfillment of these objectives incumbent on the government. This, however, cannot be done by way of traditional directives. Obligatory elements of the plan would be achieved by means of the conclusion of agreements between the designated state organs and branch and enterprise administrations.

Government purchase orders along with designations concerning the size, variety, quality of manufactured goods, etc., should serve as the basis for the temporary stabilization of procurement and retail prices, as well as margins of profit for the goods encompassed by the agreement, as well as the specification of principles governing the division of these goods between domestic consumers and the export market. This, of course, necessitates that government orders be given priority status. Government injunctions should function alongside government orders. These injunctions would apply to energy-intensive and low quality production. What a paradox! Today neither Reagan nor Thatcher renounce such programs, while in a socialist planned economy Baka renounces them.

The programs mentioned above are designed to strengthen, not change the economic reform premises, as the market structure serving as its basic premise can operate only with the collapse of the "manufacturer's monopoly" and by establishing conditions necessary for market functioning in accordance with its laws, even on a limited basis.

For similar reasons, it is necessary to add to obligatory tasks capital expenditures directed at the activation of idle buildings, equipment and installations, the increase in agricultural output, housing construction, and rapid rate-of-return investments. This necessitates the working out of a coherent financial, and accurate taxation policy, among other things taxing the idle portion of the manufacturing facility, taxing production not in accordance with obligatory norms and conditions defined in the concluded agreements, as well as the divestiture of enterprises of their unjustified profits, and profits of a speculative nature. Yes, today socialized enterprises are also speculating.

On the other hand, it is necessary to extend credit exclusively to contracted production, while credit preference and financial assistance should be dispensed to those enterprises which are decreasing energy, fabricating materials, and raw materials consumption and reactivating production based upon formerly imported raw materials and also production with the state quality designations of Q and 1.

Today, prices and salaries form the basic element of public policy. It is therefore necessary, in advance of the negotiation of prices in connection with the issuance of government purchase order contracts, to act as quickly as possible to substantially broaden the scope of the official prices list and lay down the principle of determining the maximum price for a specific product. The same concerns the tasks involved in the breaking up of monopolies of specific institutions and organizations, particularly in the procurement of agricultural crops and other raw materials. Following last

year's breakup of a monopoly in fruit and vegetable procurement, the same action should be undertaken in leather, forest undergrowth, sheep wool, and reclaimed materials procurement.

The principle of equitable and proportionate remuneration keyed to the quantity, complexity, and quality of work by employees deserves special treatment. It is necessary to formulate rapidly, and implement gradually into the entire economy, a uniform system of job skill rating and wage scales which will guarantee high rewards for conscientious work. It is necessary to implement the progressive taxation of all earnings above 360,000 zlotys per annum. This tax should be paid by all: minister, film director, worker, and agricultural laborer alike. I believe that the proportions will be quickly approved if the lowest salary constitutes one half of the average salary, while the highest salary is exempt from taxation at three times the average salary. At the same time, it is essential to introduce an equitable social policy encompassing exclusively in its activity--large families, war veterans, pensioners, invalids, and the handicapped. It is also necessary to allow those who have retired, but are able to work, to do so without suspending any of their retirement benefits.

Tasks directed at improving the state of the economy must be supported through active political, propaganda, and cadre work. Special meaning will then be attached to the observance of the principle of one-man management and responsibility on all management and administrative levels.

This is linked with the matter of the selection and promotion of personnel, and the establishment of understandable and open personnel policy standards. It is possible to be promoted to a higher level, only upon proving one's outstanding performance on the lower level. This must be accompanied by a fastidious selection of mid-level and high-level workers, to be carried out from the standpoint of the elimination of individuals specializing in the seeking out of obstacles and regulations which permit idleness and concealment of their indolence.

We must realize that only discipline and the efforts of everyone together can bring the nation out of the present crisis. We will not succeed by pitting one against the other, nor one at the expense of the other.

'ZYCIE GOSPODARCZE' Editorial Reaction

Warsaw ZYCIE GOSPODARCZE in Polish No 10, 6 Mar 83 p 16

[Article by: S.C.]

[Text] In a very interesting issue of POLITYKA dated 26 February, an article by Wlodzimierz Cymbala, adviser to J. Obodowski (the author's duties were noted by the editorial staff), entitled "Less Slack," was placed in a prominent place. It concerns the general concept of the solution of the economic crisis, although the superscription contends that it deals with reform. This article can be interpreted in this way, although it must be added that it concerns the changing of the principle of reform. The author, after all, does not conceal this.

Let us start, however, at the beginning with the title "Less Slack," which can be regarded as a catchy slogan adequate for a crisis situation. One must ask, however, "less slack" for whom? And so this slogan by W. Cymbala concerns, above all (although not exclusively) the enterprises. One could agree with him since the material demands which he places before the enterprises are very pertinent. Namely--materials and energy conservation, production of spare parts, an improvement in quality, increased supplies for agriculture and for the market, utilization of our own raw materials, and the acceleration of technological progress. Far more controversial, however, are the methods proposed for the accomplishment of these objectives. In the first place, one finds a restoration of a suitable rank to socioeconomic planning. I do not believe that a reasonable individual would deny the role of planning in our nation, but the restoration of an appropriate standing suggests that in the past planning had such a role, but does not currently. To what are we to return to? To orders, programs, obligatory tasks, etc., namely to methods which did not work in the past decade? Or to the utilization of economic measures with whose assistance the state will control the independent enterprises? Only then it does not concern the restoration of rank, but rather its reestablishment, the establishment of new methods and means of operations at the national level, above all at the level of Planning Commission operations.

Therefore, if the "lessening of slack" is to take place with the assistance of effective economic methods, then it is necessary to commit oneself entirely. The experiences of last year have proven that the majority of the enterprises were quickly able to adapt to the new fiscal-economic system, and are receptive to their influences. Did apathy exist in this system? The system's creators should eliminate this apathy, since the basis for its elimination exists in the current system of laws and regulations. The game must be carried out on both levels, i.e., the administrative level and the working level. The latter demonstrates that it can play the game, while the fact that the consequences are not entirely the expected ones, should not cause the national authorities to pull a fifth ace out of their sleeve.

Of course I do not want to suggest that the author wishes to act precisely in this manner. It is certain, however, that the detailed comments in his article must arouse concern. For example, he states that our national authorities, under the guise of simplifying the leadership structure, have eliminated the divisions within the economy and are now attempting to lead the regiments themselves. This is an impressive comparison, but concealed behind it is the stipulation concerning the restoration in one form or another of the intermediate administrative level. This is in reality a necessary level, if one wishes to govern with the aid of commands [read directives]. On the other hand, it is also a superfluous level, if one wishes to govern by means of economic levers.

The comments concerning workers' self-management are not very clear to me. In view of the emphasis placed upon the director's role, it is uncertain what these self-management organizations are to do. This is an important matter, insofar as, first, we do not lack the inclination for endowing a reform with managerial qualities, and, after all, this is not the reform which

was prepared; secondly, self-management organs having an important role in the enterprises assist in the economic guidance aspects, and present obstacles in management areas.

I do not wish to defend minister Baka, who got into hot water for not implementing the placing of government orders and not placing bans upon energy-intensive or low quality production. Professor Baka can defend himself. I only wish to add that nowhere else but in the Planning Commission were journalists persuaded that the relatively small quantity of government orders this year resulted from limited supply capabilities and were not due to the reluctance of the "reformers."

The above doubts clearly do not cancel out many valid comments regarding private agriculture, attitudes toward skilled trades, the breakup of monopolies in production and sales, and personnel and taxation policy. I am concerned, however, about a certain general matter. The crisis has pushed our entire economy up against the wall, as a result of which everyone should have "less slack." This applies to consumers, producers, and also the administrative levels. The return of intermediate administrative levels, etc., to control by command will not facilitate the situation for them, although this often appears to be so. It will not facilitate the situation, because the fact of the matter is that the people who do the actual work will not bear any responsibility, although it may facilitate the removal of directors. While at the same time, the not entirely eradicated tendency to let those who make the decisions and govern be the ones to "give," since they owe it to us will be revived. It is also necessary to remember that orders cannot create motivation during a crisis situation, however, attempts to establish motivation through participation can be made by allowing everyone to participate in the "game." One is then responsible for one's own fate.

Official Planning Commission Reply

Warsaw ZYCIE GOSPODARCZE in Polish No 12, 20 Mar 83 p 5

[Letter to the editor from Stefan Hatt, press spokesman for the Planning Commission of the Council of Ministers]

[Text] An editorial commentary entitled "For Whom," commenting on an article by Wlodzimierz Cymbala which was run in the 26 February issue of POLITYKA, appeared in issue No 10 of ZYCIE GOSPODARCZE for 6 March. This commentary is written in a way which implies that W. Cymbala's article represents the official position of the Planning Commission under the Council of Ministers. In this connection I would like to offer the following clarification.

In the first place, this article is nothing more than an expression of W. Cymbala's personal opinions. This does not mean that such personal opinions have to fall into line with the official position of the Planning Commission as a governmental agency. The official position of the Planning Commission is set forth in official documents and statements released by its senior personnel or in materials released by the Planning Commission press spokesman and carried in the mass media. Insofar as their official duties are

concerned, staff members of the Planning Commission are required to uphold this official position. However, whatever they have to say as private citizens, including on the pages of POLITYKA, is their business. We regard this as one of the signs of the democratization of public life, since it is a dubious kind of democracy in which everybody has to espouse the same opinions handed down from on high.

Secondly, as the author of this commentary rightly noted, the POLITYKA editors made a special point of mentioning the official position occupied by the author of this article. According to W. Cymbala, this was done without consulting him, in much the same way as he was not consulted about the addition of a superscript headline to the article implying that its main theme was criticism of the economic reform. This creates the impression that it was important to the POLITYKA editors that they should try to portray the contents of this article as representing a statement of the official position of the Planning Commission under the Council of Ministers.

I respectfully request that you publish the above remarks.

12229

CSO: 2600/566

CURTAILMENT OF CONTROLS OVER PRODUCER GOODS ALLOCATION URGED

Warsaw ZYCIE WARSZAWY in Polish 3 Mar 83 p 3

[Article by Dr Czeslaw Skowronek, chairman of Task Force VII for Materials Management and Flow Organization under the Economic Reform Commission: "Manual Control"]

[Text] The process of introducing economic reform is going on under difficult and complex conditions. The severe shortage of basic raw and other materials and fuels is negatively affecting both the rate of introducing mechanisms of reform and the emergence from the crisis.

The functioning of the system of material supply [the producer goods distribution system] yields with some resistance to processes of change. This results from the severe breakdown of supplies of raw and other materials and also of fuels, domestically produced and imported, from developmental disproportions which in turn influence the lack of adequate supply, and it also has its roots in the desire to maintain prerogatives of distribution through the organizational structures of the national economy used to date, and new organs created in accordance with the decisions of reform.

The Aim of the Plans

In the ultimate shape of reform it is assumed that supply processes will be based on horizontal ties realized on the basis of contracts. Contracts between suppliers and users should become the basic regulator of processes of supply, production and marketing. Involvement of the central organs in these processes should take place mainly through the assistance of economic instruments, and not directives, distribution lists, cash orders, etc.

Unfortunately, the state of the economy, the severe disproportions between material needs and the possibilities of meeting them lead to the need, in the initial period, for applying directly, at least in part, mechanisms for controlling supply. However, the action of these mechanisms should so change and conform to the solutions of reform as to not undermine the basic principles of reform: the independence of enterprises, their autonomy, a new role and function of the central plan, etc.

Maintaining central distribution of materials to a limited extent was thus foreseen but with a simultaneous major change in the process, especially in the transition from an organizational unit [plant and equipment] to a product [goods and services] character of allocations (an allocation not for the ministries and the plants but for the specific products or groups of them). The point is also to protect the interests of the whole economy formulated in the priority goals (operational programs), to eliminate from the function of distribution intermediate management level (ministries, associations) which often are advocates of parochial, ministerial-branch interests.

It was established that at the central level directions of distribution of basic raw and other materials, and also of fuels, are decided by the Council of Ministers. Particular distribution on the other hand is realized through designated supply trade organizations. The minister of materials management was to supervise these organizations, coordinating their activity, especially from the point of view of completeness of supply for buyers. To strengthen coordinating functions these organizations were entrusted also with sole authority in the turnover of the goods included in distribution.

The basic argument for maintaining distribution was and is the shortage of raw and other materials and also of fuels, and the need to protect priority goals. Of course, establishing the range of distribution was an important matter. It was the subject of much controversy. Finally, it was established that distribution would cover 16 groups of goods such as fuels, metallurgical products, nonferrous metals, lumber, cement, storage batteries, tires, and several others. These articles, it is estimated, constitute about 25-30 percent of the whole of material supply. The remaining, and thus in terms of value the important part of supply, was to be realized on the basis of freely contracted agreements. Such were the initial assumptions which were to be in effect in 1982.

Implementation of Changes

Against a background of the years' experiences, certain evaluations of the implementation of the projected changes can be formed. Often, opinions about the faultiness of accepted solutions in the functioning of the system of supply for the transitional period are formed through the prism of shortages. Of course, in many cases it is difficult to distinguish between what results from a shortage of materials and what is the result of the faultiness of institutional solutions. Actually, in all basic groups of raw and other materials, and also of fuels, supply from domestic production as well as from imports was lower in 1982 than in 1980, for example of liquid fuels by over 15 percent, metallurgical products by almost 20 percent, several nonferrous metals (aluminum, zinc) by over 20 percent, plastics by over 15 percent, etc. The increase in the production of raw and other materials which occurred last year relative to 1981 was differentiated and did not include many other groups of materials.

Even the best functioning system of supply cannot offset a decrease in supply of this scale. In the mentioned articles in 1981-1982, we also did not have adequately large stores to be able to mitigate the severe breakdown of production and imports (50 percent fewer imports than in 1980).

Under these conditions it is difficult to make a full evaluation of the correctness of the accepted solutions in the system of supply. Here a severe deficit of supply was entangled with implemented changes in the bases of the functioning of supply processes.

Maintaining distribution with a simultaneous change in its procedure had, first of all, as its goal completely meeting priority needs. Was it successful? I think, partly, yes. Evidence for this is the increase in production of many products included in operational programs. However, excessive expansion of the number of operational programs and their objective range had to lead to an incomplete meeting of material needs and depreciation of priorities. It seems that from these experiences conclusions were drawn in a clear way, reducing the number of operational programs for 1983 (from 14 to 6). The basic matter, however, is the consistent observance of the range of the established priority goals.

Practice indicates that this consistency may be lacking, as was the case last year. It must also be added that the very difficult and complex situation in material supply has its roots in, among other things, the fact that there still have not been undertaken decisive efforts, the goal of which is to stop or to limit production of selected goods (especially final products) without which the national economy could survive under conditions of the severe crisis. Influencing the situation in supply, besides disequilibrium, is also the lack of strong pressure on the part of mechanisms of reform for lowering material costs. It must be thought that only the corrections in the fundamentals of the functioning of enterprises, introduced for this year, can begin the process of an increase in the effectiveness of utilizing resources.

March to the Rear

Experience in the functioning of material supply in 1982, and also the changes made for the current year, seem to point to a dangerous development of several phenomena and processes. It seems that instead of nearing the ultimate shape of reform, we are going in an opposite direction. Maybe this is too critical an evaluation but many facts seem to confirm it.

The objective range of distribution which was in effect in 1982 was maintained also for the current year. It does not seem justified by the state of equilibrium. Some groups of goods should be eliminated from the list of distribution; these concern, for example, cement, particle board, lumber, selected metallurgical products. There is a clear tendency toward a centralization of the function of distribution and of a central disposal of materials by the sector-subsector-type ministries, for example, those of building, transportation, mining, and electrical power engineering.

Sole authority in supply turnover for certain organizations, which was projected in the solutions for the supply system for the transitional period, was to increase the efficiency of supply processes and provide a more effective distribution of material resources. Initially, this exclusivity concerned distributed goods and also several other products, and included 19 trade units. For the current year, exclusive authority was given to 29 trade organizations, and the number of groups of goods included in this authority is in the dozens. It is estimated that it constitutes at least 40 percent of the total material supply.

Horizontal Ties

The excessive expansion of this form of central control of supply creates dangerous phenomena: it strengthens the monopolistic position of producers and middlemen, it cuts off users from direct contacts and agreements with producers, and it creates a comfortable, in many cases, dominant position of these organizations in the supply market. Moreover, many symptomatic phenomena are occurring here. For example, under conditions of decentralization of management of the general construction industry there is occurring a process of centralization of distribution of building materials and a broad monopoly in their trade.

Such changes in the organization of the supply apparatus are not conducive to processes of flexibility and development of horizontal ties in supply. In the organization of this apparatus, phenomena occur which can affect the whole of the processes of initiating reform. Part of the trade organizations to which functions of distribution and exclusivity have been entrusted were included in the group of obligatory associations of producers. That is how it is in the iron and steel, and nonferrous metals industries, in the cement industries and others. In an outstanding way, this strengthens the monopolistic position of producers and their sales organizations. We have here one more characteristic example: an obligatory association of wholesale trade enterprises of building materials with far reaching functions of exclusivity, monopoly and administrative coordination, has been established. The majority of supply trade has remained in the framework of sector-subsector-type ministries, so, in this area the assignments of "Directions of Economic Reform" have not been realized.

The previously mentioned negative phenomena in the organization of supply with the simultaneous taking on of distributive functions by the central headquarters of the sector-subsector-type ministries create a real danger for the whole of reform. It promotes ministerial particularism and strengthens the monopolistic position of producers and middlemen. The lack of opposition to these phenomena and even their legal sanctioning are outstandingly negative eroding processes to the basic solutions of reform. Everything seems to indicate that in supply processes, tendencies toward "manual control" are developing, and not the contrary gradual move towards solutions proper to the principles of reform.

Flexibility and Consistency

Against the background of the review of several phenomena and processes in the functioning of material supply, certain conclusions appear. The basic matter is a gradual achievement of equilibrium in selected areas of the supply market. It is necessary to be fully aware of the fact that direct mechanisms for controlling supply--distribution, monopoly of trade--will not restore equilibrium because they are only a tool in the current distribution of resources.

Looking at the years 1984-1985, the extent and form of direct central control of material supply should be limited in a significant way. It is especially necessary to consider whether maintenance of central distribution in the present form is essential, not to say anything about the fact that without a change in the legal decisions of reform (the law on planning) this will not be possible. I think that it is necessary and possible to introduce such forms of central control of the supply of several raw and other materials, and of fuels, under conditions of a lack of equilibrium which will be more flexible and more in agreement with the general principles of reform.

Changes in the organization of supply processes should be consistently and decisively carried out to the end just as formulated in "Directions of Economic Reform." If we maintain the basic principles of reform--and after all there is no realistic alternative--then in the sphere of organization of supply processes we cannot maintain competence and orders--distribution prerogatives of those structures (old and new) which were not intended for this purpose.

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RECENT AGRICULTURAL INFORMATION REPORTED

Effect of Weather

Warsaw DZIENNIK LUDOWY in Polish 1 Feb 83 p 5

[Interview with Prof Dr Wladyslaw Wegorek, Director of the Institute for Protection of Plants, Ordinary Member of the Polish Academy of Sciences, by Hanna Lewandowska: "Mild Winter Causes Concern", date and place not given]

[Text] [Question] Professor, the exceptionally mild weather this winter causes concern among many farmers. They are afraid that the spring will bring a stronger than usual invasion of pests.

[Answer] It is too early to predict what is in store for us. It is conceivable that because of untypical weather the growth process may be weakened and the crops may be more susceptible to diseases and pests. It is not impossible, however, that there will be a rapid change of weather and the situation will change radically. Farmers and gardeners are most afraid that a wave of freezing weather without snow cover could cause irreversible damage. In that case, orchards would be threatened most. It must be remembered that the growing process in fruit trees has not been suspended--buds are not dormant and the sap is circulating--a sharp freeze could kill the trees. In that case, any talk about diseases and pests will be irrelevant.

[Question] This is a catastrophic vision and it does not have to happen. Besides, not only orchards grow on the Polish soil.

[Answer] In the fields, a sudden freeze would damage most the winter crops which have not undergone vernalization. Freeze, especially when accompanied by wind, is particularly damaging to wheat and rape.

[Question] What is the reaction of pests to a mild winter?

[Answer] No doubt, the weather record to date favors the development of and enhances the readiness to attack by the pathogenic microorganisms. Especially, the pathogenic fungi prosper very well under these conditions and if this kind of weather continues, it must be anticipated that fungus disease will attack trees and crops earlier. They always do serious damage. In such situations, the only thing to do is to combat them with chemical agents but, unfortunately, those agents are always in short supply.

[Question] Is it not high time to assure that there will be no such shortage this spring?

[Answer] Shortage of those materials is a permanent concern to all who realize how enormous could be the benefits of properly managed chemical crop protection. We are asking for help of everybody we can, but the matter is not simple, primarily because we have to rely mostly on imports. Unfortunately, we are paying now for all those years when we neglected to build our own insecticide producing industry. The result is that we are unable to produce even the most necessary herbicides or the most common fungicides.

[Question] We already know on the basis of what we learned last year how much we lose because of the shortage of pesticides. Should we not draw some conclusions from that...

[Answer] But similar situations existed not only last year; the same thing happened every year before. Certainly, there were years when we were better prepared to fight against pests, diseases, and weeds, and there were years when we were worse prepared. But we have never been well prepared. The chemists are helpless: we do not have the factories.

[Question] Would it not be possible to increase imports just a little?

[Answer] Import will be increased this year. Representatives of our Institute participate in the meetings of the committee which decides how much and which materials will be imported. The funds for this purpose are not large and will not become large any time soon. Besides, I believe that it is impossible to base protection of crops on imports. Imports do not solve the key problems. There are materials which we must have in large quantities and they ought to be produced in country.

[Question] We have talked about the danger of fungus diseases. But they are not the only ones that threaten the crops...

[Answer] After such a mild winter, insects may be very dangerous too. However, if the embryo development in the eggs laid before the winter has already started, and then came the freeze, it could kill the pests. The insects, however, are not my greatest fear. The greatest damage to our crops is done every year by weeds. This is a permanent threat and it is independent of winter weather. If we do not have enough herbicides, it is certain that we will suffer enormous losses.

Research done over a period of many years under my direction has shown that the most widespread agro-phage, i.e., the organism that destroys crops, are weeds. Profitability of using herbicides is beyond question and beyond discussion. Virtually, there is no crop that does not require herbicides to protect it against weeds. Unfortunately, as a rule, the shortage of all kinds of herbicides is acute. And this shortage is the stumbling block of our modern crop protection.

[Question] At a recent joint plenary session of the Central Committee of the PZPR and the Executive Committee of the United Peasant Party, the feeding of the nation was accepted as a first priority task in the process of lifting the country out of the crisis...

[Answer] There are reasons for optimism in that the latest decisions of the political leadership anticipate a significant increase of outlays for agriculture. Perhaps, it will be possible to decrease the most painful shortages through imports. I repeat, however, that we will not solve the problem without building our own factories.

The Institute of Organic Industry has produced some interesting new materials which we tested in Poznan and found highly promising. However, nobody can undertake to manufacture them. Simply put, we cannot get anywhere without investments. Really, I can remember only two major installations built after the war: a long time ago, a factory producing DDT was erected at the nitrogen works in Jaworzno, but we stopped using DDT many years ago; and then in Brzeg Dolny a factory was erected that produced some herbicides. In the sixties, no new installations were built and we were getting further behind. Now, we have to make up for that at any price.

Opole Area

Opole TRYBUNA OPOLSKA in Polish 2 Feb 83 pp 1,2

[Article by Bronislaw Paszkowski: "Atypical Winter for Agriculture. Typical Troubles."]

[Text] It is already February and there is not a flake of snow in our voivodship. Good thing that from time to time a drizzle and a few snow flakes provide some moisture for the soil; after the dry spell last year, there is not too much moisture. The farmers say that this year's winter is atypical and that it is hard to predict what course it will take. Anything is possible.

Taking advantage of nice days, the farmers went to the fields. They did so last week. They spread manure and liquid manure, did some ploughing, cleaned ditches. This week the work stopped. It is cooler. The fields are becoming wet. Wherever possible, fertilizer is spread, accumulated lime is disappearing from the piles. Additional allocation of these materials permits better preparation of the soil for spring sowing.

At this time, the farmers devote their time mostly to the inspection and maintenance of their machinery. At the Zygmunt Szczepaniak's in Skarbiszow, a detailed inspection of machinery purchased at the exchange was in progress. The threshing machine will not be used until the fall, but there will be no time to check its mechanisms during the summer. Also, it is necessary to seal the engine of the well worn "330". There are difficulties with buying gaskets for that tractor. Manfred Mencil from Ligota Zamecka could be found at Bukowski's shop. He also repairs machinery. He claims that Bukowski's is a reliable shop and, most importantly, it is conveniently located.

In the PGR (state) and cooperative farms' shops, the machinery maintenance work still goes on, but the readiness to go and do the spring tasks could be proclaimed today. The needed machinery is ready for action.

Tadeusz Broniarek, Deputy Director of the Opole Voivodship Agriculture Department, says that freezes without snow cover could wreak havoc in the fields and orchards. Rape is the main concern; it was out of luck for two consecutive years. It and other winter crops look good now, but...

This atypical winter favors animal breeding. Farmers claim that animals gain weight faster, fodder is not frozen and the value of animals goes up. The ten percent increase in milk production speaks for itself. Warmer temperatures also mean savings of coal, which is not too plentiful in the countryside. If it does not get any cooler, trees and bushes may get into the growing stage soon, which, should there be any freezes later, would mean tragedy for large specialized farms.

Sowing seed is the most important matter. The farmers keep their own from the last year harvest, but they would prefer certified seed from the "Centrala Nasienna" [Central Seed Supply]. However, there is no decision yet regarding the new terms of sale, and the time is running out.

So, although this is an atypical winter, farmers' troubles and those of units working for agriculture are quite typical.

Winter Crop Situation

Warsaw GROMADA-ROLNIK POLSKI in Polish 3 Feb 83 p 7

[Interview with Prof R. Roszkowski, Institute of Cultivation, Fertilization and Soil Science in Pulawy, by Gregorz Krekora: "Does Warm Winter Harm Winter Crops," date and place not given]

[Text] Something in nature went awry again: it is the end of January and there is not a trace of snow. Warm air is still coming accompanied by strong winds and rain. In some regions of the country, the spring field work was started. In the Lublin region, barley and rye grew tall enough to be harvested.

[Question] Professor, a simple question comes to mind: is this good or bad?

[Answer] I will give a straight answer: for producers who are not growers of cereals, it is very good. My dream is that this warm winter last till the spring. Remember that we planted winter crops late: at the end of September, in October and even in November. Dry weather affected growth, which was very uneven. The effects of dry weather were terrible, e.g., in the Poznan Voivodship whole rape farms had to be given up. Luckily, in the late fall some precipitation occurred, and the dried up crops could grow significantly.

[Question] That's it. Wasn't it too much?

[Answer] I believe not. Observations of the winter crops growth indicate that the fears of excessive growth are unfounded. In fact, the crops are growing apace or have three to four leaves and are growing well. We have not noticed powdery mildew, or viral, or bacterial diseases. Of course, it is hard to generalize. Where too much nitrogen was applied in the fall, the crops may have grown too much. Such a situation may occur with winter barley and the after-harvest rye that was planted early.

[Question] What would you advise the farmers in such cases?

[Answer] If precipitation will be heavy, the ground will become soggy and it will be impossible to harvest winter crops with machines. A mowing machine can do more harm than good among growing plants. A small portion of the fields can be mowed with an ordinary scythe. The rule to be used is to mow too high, especially the rye. The sheep breeders know the so-called quick pasturage of the after-harvest rye. I believe that using it once for pasturage is a good way to obtain extra fodder. There is no danger of doing damage to the rye growth provided that the grazing is done after the soil freezes.

[Question] If a freeze comes, will it destroy winter crops?

[Answer] I do not think so. First of all, winter crops can defend themselves quite effectively against falling temperatures. Despite everything, they are quite hardy. They have accumulated quite a lot of sugar in their leaves and growth knots. And the more sugar a plant has, the more resistant to freezing it becomes. Besides, even if the leaves are destroyed by a freeze, it does not mean that the plants are dead. They are capable of regrowing new leaves and shoots from the remaining growth knots. Also, it must be noted that there are differences in temperature between day and night which is very good to make plants hardy.

[Question] The conclusion then: so far, the winter crops are doing fine.

[Answer] I want to warn, however, against excessive optimism. Sudden snows and freezes in February can cause serious damage. The important thing, however, is that the water table has risen a little bit. Greater humidity of the upper layers of the soil favors well spaced and deeper growth of roots of rye, barley, wheat and rape. The plants are better rooted. In the spring it will make it easier for them to draw water and nourishment from a larger mass of soil thus giving them a better chance of surviving a possible dry spell. From the point of view of future yields, this is highly beneficial.

Thank you for the interview.

Lublin Area

Lublin SZTANDAR LUDU in Polish 3 Feb 83 pp 1,2

[Article by (name illegible): "The Warmest January in the Last 80 Years. Fruit Tree Buds Are Swelling. Pluses and Minuses of Atypical Weather"]

[Text] (From our own correspondent) January this year was the warmest in the last 80 years. In our region, the long-term mean January temperature stays between -3.5-4.5°C. This year, the mercury seldom dropped below zero. The beginning of February does not augur a cold winter either.

This atypical weather makes many people ask how it will influence agricultural production. Is the fact that so far there was no real winter something to cheer or to deplore?

The agriculture department employees of Warsaw University in Biala Podlaska, Chelm, Lublin and Zamosc were very careful when asked to speak on this subject: unequivocal opinions may be misleading--what is harmful for one type of production may be favorable to another.

There is no doubt that warm weather favors the growth of winter crops and rape and helps to restore water balance in the soil which was strained last summer and fall. It also helps cattle breeding. Thanks to this weather, cattle could graze for a longer time (in some areas, cattle grazed in the pastures in December and January) and, consequently, substantial quantities of winter fodder could be saved. Higher temperatures also helped in this respect because the animals needed less sustenance. This contributed to a higher productivity of cows, which was evidenced by greater than ever quantities of available milk and better weight gains by the cattle.

But a mild winter also harbors potential threats to agricultural production. It is well-known that winter crops have not undergone the full cycle of vernalization and some were prematurely induced to start the growth. Thus, a sudden drop in temperature without a snow cover on the ground can cause serious damage, especially to rape. This also applies to orchards. One can see swollen buds on fruit trees; should a strong freeze come, the harvest could be harmed.

There is still another bad effect of the atypical weather. The mild winter caused excessive warming up of and increased humidity in potatoe clamps. There are signs that potatoes are germinating and starting to rot. In this situation, the farmers must devote more attention to clamp maintenance. The specialists recommend airing the clamps and weeding out the bad potatoes.

January Inventory Results

Warsaw DZIENNIK LUDOWY in Polish 4 Feb 83 pp 1,2

[Article by Stanislaw Ozonok: "In the Middle of the Winter about the Agricultural Spring. Initial Results of the January Survey"]

[Text] (From our own correspondent) Throughout the fall, old mountaineers assured us that after a dry and hot summer there must be a cold and snowy winter. Well ... on January 4, going from Swinioujscie to Szczecin, I saw cattle grazing in the fields. Not even the oldest cows can remember anything like this at that time of the year.

Thanks to high temperatures and profuse rains, not only grass but also winter crops glisten with fresh color and, as the experts say, have become totally nonresistant. Hence, lower temperatures and snow create uneasiness about the fate of winter crops. If bad freeze and snow should come, there would be major trouble aggravated by the fact that, due to the dry fall, the area planted in rye and wheat is 250,000 hectares less than planned, and the area planted in rape is only 150,000 hectares.

Luckily, meteorologists assure us that the temperatures in February should not fall below -7°C . Let us hope that the forecast will turn out to be correct, especially that the January forecast was 100 percent correct.

In view of the fact that the area under winter crops is somewhat smaller than needed, the farmers must get ready for sowing the spring crops. Most importantly, at least 8.2 million hectares should be put under cultivation, and the seed used should be of the highest quality possible.

The information that we obtained from the Ministry of Agriculture and Food Economy indicates that the preparations for the fall sowing are already underway. Seed farms and stations are putting at the farmers' disposal 175,000 tons of spring barley, spring wheat and oats. The farmers can obtain good sowing seeds in two ways. Either they can get 100 kg of sowing seed in exchange for 100 kg of consumer and grain fodder seed plus 540 zlotys, or they can get 100 kg of sowing seed in exchange for 130 kg of consumer seed. Those farmers who were the victims of natural disasters--last year's dry spell or this year's flood--can get 100 kg of sowing seed for 2,480 zlotys. The farmers contracting to produce grain for seed, will be provided with the superelite, elite and the original at the prices established for breeding material.

Also underway are the preparations of fertilizers and means to protect crops during the spring campaign. Information from the Central Association of Agricultural Cooperatives indicates that the stocks of fertilizers in the Rural Commune Cooperative stores are currently sufficient and everything indicated that this year the farmers will apply 10 kg more of nitrogen, phosphorus and potassium per hectare than in the previous year.

Also of considerable interest is the current situation in the area of animal production. The preliminary results of the January animal census are already known. They show that overall the number of animals is 3.8 percent less than on the first of July last year. There is consolation, however, in the fact that the number of cows, despite some alarmist signals and information, has remained unchanged. On the other hand, a significant decrease of the number of young cattle has been noted, and this forces us to expect that the total quantity of available beef on the hoof will decrease this year.

Among individual farmers, the decrease in the number of cattle is small and is the result of a temporary decrease of the reserve of winter fodder. It should be anticipated that the number will be restored already this year. The situation is somewhat worse in the socialized sector. Here there is a noticeable tendency to move away from cattle breeding. This is the result of the excessive growth in the previous years which exceeded the availability of fodder. In our

opinion, a further decrease threatens that this year the number of cattle will be reduced to the level determined by the availability of fodder produced by grazing lands and the rational utilization of cultivable fields.

The situation is a little worse in the area of hog production. The January survey showed a decrease as large as 8 percent, i.e., to the level under 17.6 million animals. Especially worrisome is the decrease in the number of sows which amounts to 25 percent. The decrease of hog production was noted only on private farms. Socialized farms showed a slight increase.

That survey indicates that we are facing the most acute fall of "hog cycle" on private farms and that this falling trend will last another few months. On the other hand, socialized farms have already adjusted the number of hogs to the availability of their own fodder capabilities.

It is very promising that for the last few weeks the prices of piglets are going up on the "neighborhood" market. In some voivodships, the prices are reaching 7,000 to 8,000 zlotys for a couple.

Winter Crops, Spring Planting

Warsaw EXPRESS WIECZORNY in Polish 7 Feb 83 pp 1,4

[Article by (zkr): "Winter Crops are Doing Fine. Maintenance of Machinery is in Progress. If the Weather Does Not Come Up With Another Surprise, the Sowing Will Start on Time"]

[Text] The forecast prepared by the IMiGW [expansion unknown] for this month indicates that we have to wait for the spring a little longer. According to the meteorologists, in February we will have 16 days with precipitation, either snow or rain. This is good news for agriculture because after the last year's dry weather, there is a shortage of water.

How have winter crops survived this atypical winter and how advanced are the preparations for the spring work campaign? These were the questions we have addressed to scientists and practical experts.

Prof Marek Ruszkowski of the Institute of Cultivation, Fertilization and Soil Science in Pulawy said that almost everywhere in the country the winter crops had favorable conditions for growth. Temperature differences between day and night hardened the plants and there should be no danger that they would freeze.

In our climate zone, there is usually a break in field work from October to March. This time it was different. Farmers were catching up in December and January with the work which had not been completed in the fall. Therefore, this spring they should have no reason not to start sowing on time provided, of course, that nature will not surprise us again, and this is always possible.

After the precipitation--snow and rain--in the December-January period, the water content of the soil has improved. This precipitation was not too profuse but, as there was no freeze, the ground could soak up the water easily.

Antonina Jaskowska, a senior inspector in the Voivodship agricultural office in Gorzow Wielkopolski, said: "In our voivodship there was spring-like weather until a few days ago. Now there are strong winds, and snow mixed with rain is falling. We may have a real winter after all. We are happy about it because we do not have enough water. We are still suffering from the last year's dry spell.

"Organizationally, we are fully prepared for the spring campaign, no surprises are expected. At this time we are inspecting the sowing stocks. So far, the results are satisfactory. Only one lot of wheat was sent back to be exchanged because of low quality.

"Last year, there were long lines in front of half empty communal cooperatives' warehouses to obtain fertilizers. This year the situation changed diametrically. The warehouses are overflowing, and there are no takers. After a relatively high increase of fertilizer prices, the farmers cannot make up their minds to buy. I believe, however, that as the spring approaches, the demand will go up."

"I have just come back from a field trip," said Jerzy Karaszewski of Agriculture Department GZiL [expansion unknown] of the University of Warsaw in Lomza. "I do not want to speak too soon, but the winter crop looks better now than a year ago. Plants look strong and sturdy. They have enough water. Also, I have noticed that the water table is up."

Jan Licznar, director of the Voivodship agricultural department, said: "We have set 15 March as the final date when all the machinery maintenance must be completed. In all communes the chiefs established committees which supervise the preparations for the spring fieldwork campaign in agricultural circles, production cooperatives and state farms.

"Our observations indicate that there is a bit of improvement in the availability of storage batteries and tires. The replacement parts situation, however, is still bad. Despite the fact that we have succeeded in interesting some small shops in their production, we are still below the sufficiency level.

"I am very worried about the state of our soil in this voivodship. After the most recent precipitation, the upper layer looks quite well, but 25-30 cm deep the soil is still dry. It will take quite a lot of snow and rain to improve the situation."

Olsztyn Area

Olsztyn GAZETA OLSZTYNSKA in Polish 8 Feb 83 pp 1,2

[Article by (Rs): "Yields--83. Ploughing Has Been Done. 310,000 Hectares for Sowing and Planting. More Fertilizers than Last Year"]

[Text] (From our own correspondent) Although the real winter with the snow and freezing weather has just started now, in agriculture one can already feel that the spring campaign of sowing and planting is near. Let us remember that

in the fall 20,000 hectares of winter rape and over 100,000 hectares of cereal grains were sown. According to the experts, these crops are doing well. The atypical weather did not threaten winter crops, and the snow and rain that fell in January on unfrozen soil permitted storing the water and the improvement of the water content of the soil. The winter ploughing was done over an area of 220,000 hectares as planned, and that is a record achievement; it augurs well for the 1983 yields.

The spring sowing and planting will cover an area of over 310,000 hectares. Spring cereal grains will be sown on 145,000 hectares, industrial plants on 10,000 hectares, potatoes on 42,000 hectares, fodder crops on 110,000 hectares and vegetables on 4,000 hectares. In comparison with the previous year, the spring sowing increased by 8 percent on individual farms and by 2 percent on the state farms.

To sow the planned area of spring crops, 25,000 tons of sowing seed are required. These requirements will be satisfied from the stocks of the Seed Supply Center and from farmers' own stocks. The Seed Supply Center accumulated in its own warehouses 10,000 tons of spring cereal grain seeds, including 500 tons of wheat, 4,800 tons of barley and 4,700 tons of oats. These quantities will fully satisfy the requirements of the voivodship: 1,500 tons of seed have been designated to replenish the sowing stocks of private farmers.

The requirement for the fodder plant seeds is estimated at 4,600 tons. The Plant Growing and Seed Enterprise in Olsztyn promised to supply 98 percent of that quantity. Missing will be Persian clover, serradella and turnip. On the other hand, there is surplus of coarse-grained papilionaceous seeds: field pea, vetch, standard pea, grasses and corn. Of necessity, some substitution of plants will have to take place.

There is the requirement for 105,000 tons of seed-potatoes, and the Seed Supply Center promised to supply 20,000 tons. That enterprise already delivered 7,000 tons of seed-potatoes in the fall to farms, including 2,200 tons for the planned restocking. That company will deliver 17,000 tons of seed-potatoes in the spring, including 1,500 tons for the planned renewal. This will fully cover the needs of its own voivodship, and it will be possible to ship 4,000 tons of seed-potatoes to the southern voivodships.

The fertilization plan for the 1983 harvests anticipates using 186 kg of NPK [nitrogen phosphorus-potassium] and 125 kg of calcium oxide, i.e., 15 kg more mineral fertilizers and 34 kg more of lime than last year. On the state farms fertilization will be higher: at the level of 225 kg of NPK and 147 kg of lime; on private farms it will be 155 kg of nitrogen, phosphorus and potassium fertilizers and 106 kg of pure lime per hectare. There is concern, however, about large stocks of fertilizers at the Communal Cooperatives' warehouse because private farmers are not buying them. Consequently, at the local level fertilizers from the private farmers' pool are being sold to socialized farms.

The problem of chemical protection of crops against diseases, weeds and pests cannot be ignored. The protective efforts will be conducted on the area of over 320,000 hectares, including 190,000 hectares of cereal grains, 45,000

hectares of potatoes, 22,000 hectares of corn, 57,000 hectares of industrial plants and 8,000 hectares of papilionaceous crops and seed grasses. The stocks and allocation of chemical materials are higher than last year's sales: almost 50 percent for insecticides, 95 percent for fungicides and 25 percent for herbicides.

Preparations for the spring work campaign are well advanced. They are directed by the voivodship working team. It has been decided that the state farms, agricultural cooperatives, and agricultural service and maintenance points would complete the maintenance of mechanical and cultivating equipment needed for the sowing-planting campaign. The spring cereal grain and the fodder crop seeds will be delivered by 5 March and the seed potatoes by 20 April. Collection of orders for services will be completed by 28 February. The Voivodship Land Surveying and Cultivated Lands Office, the Voivodship Plant Quarantine and Protection Office, the Regional Inspectorate of Seed Inspection, Volunteer Life-Savers' Association, and especially, mayors and gmina managers will check in April and May the quality of work dedicated to bringing arable land under cultivation, will increase the number of quality checks of the delivered seeds, will reinforce individual counseling and will recommend improvements in agricultural technology, methods for clearing the fields of stones, care of grasslands, etc.

Spring Preparations

Warsaw DZIENNIK LUDOWY in Polish 10 Feb 83 pp 2,7

[Article, unsigned: "Preparations for the Spring Fieldwork Campaign"]

[Text] The Central Committee of the PZPR and the Executive Committee of the United Peasant Party at a joint meeting last January decided that one of the most urgent tasks of our agriculture is to increase the production of fodder crops which determine domestic availability of fodder and, consequently, the level of animal production. The lack of growth in the production of fodder crops in the last decade or so was so far made up by increased imports of cereal grains and fodder. This policy, which increases the country's indebtedness, cannot be continued, especially since it is possible to increase domestic production of cereal grains and fodder.

The first test of how this task is accomplished in practice will be provided by the coming spring fieldwork campaign. Considering the fodder requirements in the face of reduced cereal grain and fodder imports and considering the country's food needs, this year we should plant no less than 8.2 million hectares in grain crops, regardless of the efforts to increase yields. This means that this spring no less than 3.8 million hectares must be planted in the spring grain crops. Last fall, because of the prolonged dry spell, only 4.5 million hectares were planted in winter crops, i.e., 300,000 hectares less than was planned. Moreover, certain losses of winter crops must be expected during the winter season. All that, however, can be made good in the spring by increasing the area planted in spring crops.

The mild winter this year has permitted us to make up the plowing for the spring crops, which could not be done in the fall, and speed up their sowing. The seed supply firms are in a position to deliver to the farmers about 200,000 tons of certified seed for the spring crops under terms more favorable than last fall. The chemical industry assures that this year's deliveries of mineral fertilizers will be higher than last year by 10 kg of the active agent per hectare and by about 15 kg of lime per hectare.

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CSO: 2600/524

EXPENDITURES FOR SOCIAL SERVICES IN 1982

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 7 Feb 83 p 31

[Text] General and Joint Expenditures

Slight Effect of the Restrictions

During the past year, 1,067 billion dollars were spent for general, joint and other needs; in nominal terms this was 28 percent more than in 1981. The growth rate in these expenditures was in fact reduced by 3 percent in comparison with 1981, but on the other hand it was considerably above what was anticipated by the resolution, and in view of the rate of inflation, it was almost sufficient to maintain the real volume of these funds. Thus, one cannot even speak of a "stabilization effect" in this area.

During the past year, general expenditure "took away" 351 billion dinars, or 22 percent more than in 1981. Last year did not bring any real changes in the structure of these funds, both with respect to the sources from which they are collected, and with respect to the participation of the beneficiaries. In the formation of the total amount, the turnover tax's share was 1.5 percent less than in 1981, and the income tax's was 0.9 percent less; these most obvious shifts in the structure of the sources were compensated for by the almost equivalent increase in the share of the other significant categories. In the distribution of funds for general consumption, the share of the budgets of the republics and provinces was reduced from 40.3 to 38.7 percent at the expense of an increased share by the budgets of the federation and the municipalities and cities. A similar situation also occurred with joint expenditure, for which about 500 billion dinars were spent last year. The only significant change was the 1 percent larger share in the distribution by the SIZ [self-management interest community] for retirement and invalid insurance, achieved at the expense of the funds of the other two large beneficiaries--the SIZ for health insurance and the SIZ for education.

The income for so-called secondary expenditure last year amounted to over 215 billion dinars (34 percent more than in 1981), of which 39 billion was allotted to the Interest Community for Foreign Economic Relations (18 percent more). The largest portion is constituted by the resources of the federation's fund for the development of the underdeveloped areas, and

the growth in these funds was the most rapid (60 percent). About 30 billion dinars were collected through contributions for housing construction (a 31 percent increase), and close to 26 billion were collected from reimbursements for highway vehicles and contributions for roads, which a nominal reduction of 2 percent in comparison with 1981, which could have been expected in view of the method of collecting these funds.

Payments From the Income of Sociopolitical Communities in 1982, by Source

	<u>Mil. dinars</u>	<u>Percent</u>	<u>1982/1981</u>
Total	391,840	100.0	122
Taxes on income and from personal income	65,472	16.7	118
--on income	34,103	8.7	111
--from personal incomes	21,026	5.4	127
--from agriculture, etc.	10,343	2.6	130
Taxes on turnover, property, etc.	241,556	61.6	120
--basic turnover tax	166,622	42.5	118
--republic tax	30,431	7.8	127
--municipality tax	41,664	10.6	128
--on income from property	2,839	0.7	131
Taxes	4,384	1.1	119
Customs duties	69,300	17.7	124
Other income	11,128	2.9	165

Distribution of the Income of Sociopolitical Communities in 1982, by Beneficiaries

	<u>Mil. dinars</u>	<u>Percent</u>	<u>1982/1981</u>
Total	391,840	100.0	122
Federation	117,041	29.9	123
Republics and provinces	151,766	38.7	117
Municipalities and cities	73,552	18.7	128
Interest Communities	40,624	10.4	121
Funds	298	0.1	45
Other beneficiaries	8,559	2.2	180

Payments From Income to SIZs for Social Activities in 1982 and Their Distribution by Beneficiaries

	<u>Mil. dinars</u>	<u>Percent</u>	<u>1982/1981</u>
Total	499,827	100.0	129
SIZ for retirement and invalid insurance	185,213	37.1	133
SIZ for health insurance	140,445	28.1	127
SIZ for education	104,114	20.8	123

SIZ for protection of children	29,762	5.9	128
SIZ for culture	12,070	2.4	131
SIZ for social security	9,069	1.8	133
SIZ for scientific work	6,057	1.2	134
SIZ for physical culture	5,689	1.1	122
SIZ for employment	4,789	1.0	121
Other SIZs	2,619	0.6	132

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DECLINE IN PORT TURNOVER

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 21 Feb 83 pp 26-27

[Text] Decline in Turnover

In 1982, Yugoslavia's seaports achieved a total commodity turnover of 17.07 million tons, which represents a decline of 12.5 percent in comparison with 1981. The only exception was the Koper port, at which last year a 14 percent growth in total turnover was observed. Domestic ships carried 11.923 million tons, or 43.3 percent of the total turnover, while in international turnover, domestic vessels carried one fourth of the cargo. The main reasons for the decline in total commodity turnover could be the reduction in oil imports, but also imports of other types of commodities, as well as less transit. Particularly disturbing is the decline in turnover in port transit, since last year only the Koper port achieved an increase in transit turnover (2 percent), due primarily to the structure of the commodities. The reasons for this decline in transit are primarily undeveloped transit policy, followed by the lack of modern technology and capacities, as well as the unresolved tariff policy.

The lack of ties between the ports and domestic transportation is probably one of the greatest problems in Yugoslav transportation. This assessment was recently heard at the General Association for Transportation of Yugoslavia. This particularly applies to the railroads, in which, along with a renewal and increase in port capacities, it is necessary to modernize the railraod. The existing transportation corridors should be equipped to receive port turnover, which could be greater in volume, and more favorable in the structure of the cargo.

As for financing the port infrastructure, there are proposals that it should be financed like the rest of the transportation infrastructure, for example the roads. The unresolved status of the free customs zones is still one of the problems encountered by this branch of transportation. Solutions are being awaited, while a draft law on free customs zones is presently being discussed and coordinated.

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BRIEFS

LIQUID GAS PORT AT RIJEKA--Next to the tanker port at Urinje near the Rijeka refinery, a port for liquid gas has been built and recently put into service. The embankment of this port is 85 meters, and ships of up to 10,000 DWT can sail into it. Immediately next to the newly built port, three reservoirs have also been constructed, with a total capacity of 15,000 cubic meters. These are the first special (spherical) reservoirs built in our country with domestic materials, knowledge, and equipment. The construction of the liquid gas port will considerably accelerate deliveries of this fuel from the Rijeka Refinery at Urinje. The former capacity of the storage space for liquid gas at this Refinery was only 1,100 tons, which was a "bottleneck" in supplying consumers. [Text] [Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 14 Feb 83 p 36] 9909

CSO: 2800/191

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